



# Polio Hero News



Spring 2020



## **CORONAVIRUS FROM POST-POLIO HEALTH INTERNATIONAL - 3/12/2020**

Polio and the late effects of polio **do not**, in themselves, cause immune compromise. Polio survivors are **no more** likely to contract coronavirus or develop serious illness from it than people who never had polio. Most polio survivors in the US and Canada are over 60 years old, which places us in the "high risk" category with a greater likelihood of developing severe disease after being infected with the virus than younger people. Polio survivors who had breathing muscle involvement with their original illness and/or now have **respiratory problems of any kind** are at "high risk" when becoming ill with **any respiratory infection**, including coronaviruses. As it is for those who never had polio, if a polio survivor has diabetes, heart disease, severe kidney disease, or are immunocompromised due to a medical condition or certain medications, they are at high risk of developing complications if they contract COVID-19. Follow CDC guidelines. Wash hands frequently. Disinfect surfaces. Cover cough and sneezes. Stay home. Avoid non-essential trips. More information @ CDC's website [www.cdc.gov/coronavirus/2019-ncov/](http://www.cdc.gov/coronavirus/2019-ncov/) or Post-Polio Health [www.post.polio.org](http://www.post.polio.org) 314-534-0475

**EASTER SEALS TN NEW ADDRESS** - Our Easter Seals TN has moved to : Suite 228, 500 Wilson Pike Circle, Brentwood, TN 37027. Visit Easter Seal TN web site at ([www.easterseals.com/tennessee](http://www.easterseals.com/tennessee)). They carry our newsletter and other service information, (Use the **Easter Seals TN** address for donations.) Many other polio support groups around the US and Canada have had to fold due to an aging population of polio survivors. We have many in our group in their 80's and 90's, our youngest is 22. Easter Seals TN makes it possible for our group to continue to provide the best possible information to the members of our support group **free**. We share information with other Polio Support groups for information and articles, much like the one in this newsletter from the Boca Area PPSG in Florida on Bladder Problems of Polio Survivors. Easter Seals TN provides the printing, envelopes and postage for our newsletter mailings at no cost to our members.

## **FALL 2019 POLIO LECTURE CLASS FEEDBACK**



*We Appreciate Your Support.*

Dr. Ryan McConnell, PT sent us some of the comments from the 2nd year physical therapy students at Belmont University after our lecture class in December, 2019. There were 48 students in this class from all over the country. (**Our Spring clinical class with volunteers is canceled.**) This was the 30th class of physical therapy students over as many years taught about polio and post-polio by Polio Heroes of TN Support Group. These are a few of the comments:

- " Before today, I knew nothing about post-polio, much less how impactful I could be for these patients."
- " Nickie's video was very touching... seeing kiddos with atrophy so severe, crutches, braces were really heartbreaking. Her commentary during the video was especially impactful".
- " The knowledge of support groups and involvement was helpful; this gives me tools for future patients."
- " Even I am guilty of being ignorant, I also thought that polio was diagnosed in infants and not adults."
- " I never realize that diaphragmatic breathing may be more important in this population and should be considered".
- " I would never have thought of oxygen poisoning or difficulty waking up until today."
- " I did not know that water temperature (for polio patients) was different and would make a therapeutic difference".
- " Nickie's talk was a great reminder of how polio is still relevant to physical therapy practice and that AFM may be of our generation".
- " I was glad to hear of the research and the information about decisions for surgeons was enlightening".
- " This is a great reminder that the psychosocial aspects are devastating. I am so grateful to have had her come in and tell her story."
- " I enjoyed her sharing the psychological effects and some stigmas of polio".
- " I had no idea that stress and overuse were the leaders for post-polio syndrome."
- " So sad to hear that medical providers are not knowledgeable about polio."
- " I really learned a lot today. It is so important and interesting to hear from someone who lived through it ...."



**POLIO HEROES OF TENNESSEE Support Group** • Nickie Lancaster, R.N., *Group Leader and Coordinator*  
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SPRING 2020

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**We continue to collect old photos, Jr. League papers and newspaper articles about members of our support group. You may send them to: Nickle Lancaster, 529 Albany Dr., Hermitage, TN 37076-1422 or email to [smlphtnOatt.net](mailto:smlphtnOatt.net)**

**If you would like the photos returned we can copy the originals and return them to you. If we do not preserve these images, they will be forgotten.**



**Chuck Albert In 1961 Wheel Chair race - go Chuck!**

**OR. RICHARD BRUNO. PHO SPEAKS TO ATLANTA PPSG from APPA NEWS; Summer 2019, Atlanta, GA**

Dr. Richard L. Bruno, PhD, Chairperson of the International Post-Polio Task Force and Director of the International Centre for Polio Education (PostPolioInfo.com) spoke to about 60 members of the Atlanta polio support group in May, 2019 at their conference on *THE LAWS OF POLIO ELECTRO DYNAMICS at the Atlanta Shepherd Center.*

**1st Law - Muscle Electro Dynamics**

"Paralytic polio is associated with severe motor neuron damage in the spinal cord and brain. Non-paralytic polio (and 'unaffected' muscles) may be associated with severe neuron damage in the spinal cord and brain *Without paralysis.*"

**2nd Law - Brain Electro Dynamics**

"All available evidence shows conclusively that every case of polio exhibits damage to the brain. Some with non-paralytic polio do not have any spinal cord damage but have characteristic damage in the brain, which is more extensive than in some who have paralysis. The poliovirus is capable of producing an encephalitis *with or without symptoms, in the absence of any damage to the spinal cord.* As far as the pathologist is concerned all cases of polio are 'encephalitic'."

**EFFECTS OF THE BRAIN LAW**

- \* BRAIN FATIGUE is due to brain activating system neuron damage, especially to dopamine neurons.
- \* DOUBLE SENSITIVITY TO PAIN due to making too little "internal morphine" in the brain and spinal cord.
- \* INCREASED SENSITIVITY TO ANESTHETICS due to low dopamine and internal damage to brain activating neurons.
- \* POLIOVIRUS DAMAGE TO THE BRAIN STEM CAUSES: shallow breathing, retaining carbon dioxide and apnea in sleep, trouble swallowing, constipation, gastric reflux, high/low heart rate, fainting and an inability to control body temperature.

**PROBLEM: TWO TYPES OF PPS SYMPTOMS**

DIRECT: PPS symptoms caused *directly* by neuron damage resulting from poliovirus.  
 INDIRECT: PPS symptoms caused *indirectly* by the poliovirus in body parts *not* affected by polio.

- DIRECT**
- \* Muscle weakness.....
  - \* Fatigue
  - \* Sleep disorders
  - \* Sensitivity to anesthesia and pain
  - \* Difficulty swallowing and breathing
  - \* Intestinal slowing
  - \* Low blood pressure and low or high heart rate

- INDIRECT**
- + Muscle pain
  - + Joint pain and deformities
  - + Arthritis (oints and back)
  - + Pinched nerves (spine, wrists, and elbows)



**Brunoism Footnote: Dr. Bruno dispelled pressure to get more exercise with this great analogy of the cell phone. "When battery is low, do you make more phone calls or do you rest the phone on the charger?"**

**THIRD EUROPEAN CONFERENCE ON POST-POLIO SYNDROME ANNOUNCED**

Post-Pollo Health in St Louis, MO announced in their Fall 2019 News that the 3 day international conference on post-polio will be held in Vitoria-Gasteiz, Spain June 10-12, 2020. For more details on the conference go to: [www.postpoliocongress.com](http://www.postpoliocongress.com) or contact Post-Polio International in St. Louis, MO. 314-534-0475



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**SPRING 2020**





Creating solutions, changing lives

DeMayo's Q&A Clinic

## BLADDER BASICS IN POLIO SURVIVORS

Dr. William DeMayo, MD

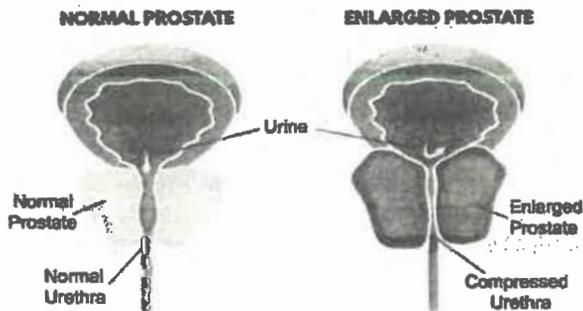


*Dr. DeMayo, I have PPS. In the last few years I have experienced bladder issues. I have urine retention. On a recent CT Scan, It showed pelvic muscle atrophy. Is there a connection with Bladder problems and Polio? Were Pelvic muscles effected by the virus?*

Great Question! Unfortunately, there is not a great, short answer. Nevertheless, like most good questions, there is an opportunity to use this as a learning opportunity.

First a few basics...

1) The first Basic Bladder issue is that bladder issues in men are far different than in women. As the question above was forwarded to me, I don't know which gender it came

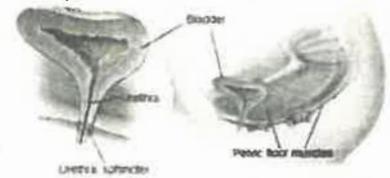


from. By far, the most common source of urine retention (inability to empty the bladder) is obstruction of outflow caused by the prostate in men. PPS itself does not cause urine retention in the bladder. Having said that, one needs to be sure that retention is in fact the problem. This is usually done with an ultrasound of the bladder after a void to see if too much urine still remains. Of note, frequent urine incontinence (inability to control urine/wetting one's self) can be either due to

urine retention with "overflow" leakage OR due to a lack of resistance to flow. The latter is far more common in PPS due to weakening of the pelvic floor as discussed below.

Also, incontinence is far more common in women compared to men due to multiple factors including a shorter urethra (the tube connecting the bladder to the outside), the urethra having less of a bend (especially when the pelvic floor drops), and lack of resistance of the prostate. Additionally, the bladder storage capacity in women tends to be smaller (partly due to presence of the uterus).

2) The second Basic Bladder issue is that neurological issues can have a major impact on urologic function. The bladder can become either over active or one can lose the awareness of bladder filling.



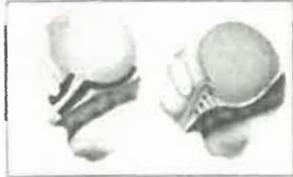
Coordinated control of the bladder storage and emptying requires the interaction of muscles in the bladder wall, nerves from the bladder to the spinal cord, reflexes coordinated within the spinal cord and control from the brain (both with conscious awareness and without). Stroke, Brain Injury, Spinal Cord Injury, Multiple Sclerosis and many other neurological conditions can result in incontinence due to what is termed an "upper motor neuron bladder". Since Polio is a lower motor neuron problem, we won't discuss these more other than to say that Polio patients are not immune from any of the above conditions so they should always be considered. Also, the normal aging process can create a "hyper reflexive bladder" that can mimic an upper motor neuron problem.

3) The Bladder Basic that is most pertinent to Polio survivors is that the pelvic floor muscles play a profound role in bladder function. Any older individual is subject to





this issue, but those who have restricted mobility or a prior reason to have pelvic floor weakness are certainly more at risk. "Stress Incontinence" results when a cough, a laugh or a sneeze increases the pressure in the abdomen and thereby increases pressure on the bladder.



It occurs when the resistance to outflow is low, & this is especially the case in women. Polio can

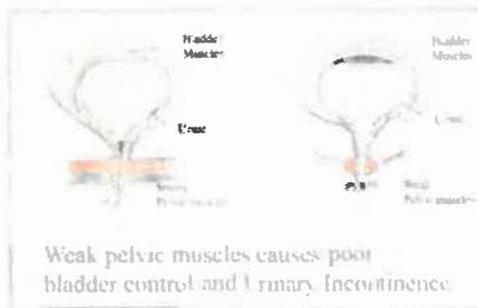
certainly cause weakness in the pelvic floor muscles, and this weakness can progress in cases of PPS.

Additionally, a history of child birth, recent sedentary lifestyle and weight gain can all add to relative weakness of the pelvic floor. Weak pelvic floor muscles are directly associated with less resistance to outflow. They play an important role in supporting the bladder, directly tightening the area around the urethra as well as creating a "kinking" effect with cough, sneeze or other activity which further increases resistance.

4) The last Bladder Basic is that many times bladder management is *NOT* Basic. Urine infection, bladder / kidney stones, stress, physical activities, behavioral concerns and many other issues can significantly impact bladder function. As such, all significant symptoms that do not resolve, should be evaluated. Referral to a urologist should always be considered if symptoms fail to resolve with treatment by a PCP (primary care physician).

Additionally, some Physical Therapists specialize in Pelvic Floor therapy. They can often be found through your urologist, PM&R physician or GYN. Like any muscle, the pelvic floor can be over fatigued; and so

treatment of a patient with PPS should be individualized and not focused on just intensive pelvic floor strengthening. A good PT specializing in this area can often provide lots of tips to improve symptoms. An example would be an older person who repeatedly has incontinence on the way to the bathroom. By the time they realize the bladder is full, they risk an accident because the act of moving from sit to stand causes a reflex spasm of the bladder and the pelvic floor is not strong enough to resist this. Thankfully, there is an opposing reflex that inhibits the bladder (briefly) after 3 strong but quick contractions of the pelvic floor (Kegel-type contraction). Thus, if this person takes 10 seconds to do these 3 contractions prior to standing, they can sometimes counteract the reflex bladder activity just long enough to get to the toilet.



A full explanation of bladder management is obviously well beyond the scope of this brief article. At

the same time, I hope I have provided some insight into the way some bladder issues arise and provided hope that there are solutions.

Source: <https://www.papolionetwork.org/demaynos-q-a-clinic.html>

