

Bruno Bytes – April, 2015

On the topic of Getting the Wild Polio Virus 4/27/2015

Question: Can a person who has had the IPV (polio shot) only get wild polio virus if a person with wild polio virus from another country comes here? I want to get my facts straight before taking on another “anti-vaxer”. Also, is the polio vaccine now combined with DPT and/or other vaccines today?

Dr. Bruno’s Response: Wild poliovirus is the same thing as a wild dog. A wild dog is not domesticated, meaning that it will chew your foot off if you make it stay in the house. Wild poliovirus will kill or paralyze you if it gets inside of your “house” (your neurons).

The Sabin vaccine poliovirus has been passed through generations of animals and mutates so that it no longer causes neuronal damage, that is it is no longer wild. The vaccine poliovirus is much more effective than they killed poliovirus in creating anti-bodies and protecting the community because it lives in the gut like the wild poliovirus. However the vaccine poliovirus can mutate, thereby becoming wild again, and itself cause paralysis or death.

Statistically the only way an American who has not been vaccinated can be infected with the poliovirus is if someone brings it in from another country, which is a clear and present danger but not something that is anticipated to cause an epidemic in the near future.

If a polio survivor or anyone else goes to a country where polio is endemic or, given the refugee crisis in Europe, leaves North America, they should have their antibody titres to the poliovirus measured and, if they're low, have a vaccine booster. But here's what the CDC has to say:

<http://www.cdc.gov/vaccines/vpd-vac/polio/>

Another Question on the topic: Is the polio virus that is still attacking in the African and Asian countries only one of the three types of polio virus? Is the Type III still lurking? Wasn't it the most devastating type?

Dr. Bruno’s Response: It seems that in the US and even Africa, Type II poliovirus is gone. The Type I is and always has been THE epidemic strain. If you haven't been vaccinated and come in contact with a baby who has received the oral live polio vaccine within the month, you shouldn't change a diaper to reduce the chance that the vaccine virus has mutated. Unless you are in contact with a foreign infant, in the US or overseas, since the injected *killed* vaccine is used in the US, there is no danger.

On the topic of Fainting and Fatigue 4/25/2015



Fainting and Fatigue in Polio Survivors

By Dr. Richard L. Bruno

Chairperson, International Post-Polio Task Force
and Director, International Centre for Polio Education

PostPoliInfo.com

The relationship between fatigue, brain stem damage and low blood pressure links polio survivors to another bunch of very tired folk: those with chronic fatigue syndrome.

Question: I had polio with weakness in my left leg. I recovered and carried on a normal life until the early 1990's when I started to have fatigue, heart palpitations, skipped beats and low blood pressure, especially after I eat. Should my doctor be considering any tie-in with polio?

Answer: Oh, yes! Fifty years ago polio pioneer David Bodian discovered that every polio survivor had some poliovirus-damaged to neurons in the brain stem, the so-called "bulb" of the brain. When brain stem damage was severe "bulbar" polio was diagnosed whose icon, the iron lung, was needed when brain stem breathing-control neurons stopped working. But the most common symptom of "bulbar" polio was trouble swallowing, not trouble breathing. And some "bulbar" polio patients had severe difficulty controlling their blood pressure and heart rate which was the leading cause of death in these patients, not being unable to breathe.

The brain stem neurons damaged by the poliovirus that are responsible for controlling breathing, swallowing and blood pressure work by way of the vagus nerve, which carries commands from the brain stem to activate muscles in your throat, esophagus, stomach and intestines and also slows your heart rate. But the vagus nerve is a two-way street, since it also "listens" to activity in the gut and sends that information back up to brain stem neurons.

Vagus/brain stem damage disrupting the normal functioning of the gut may explain our Post-Polio Survey findings that swallowing difficulty, diarrhea, colitis, ulcers and constipation are as much as six times more common in polio survivors than in non-polio survivors. And the symptoms you describe may result from poliovirus-damage to the vagus as well as brain stem blood pressure and heart rate control neurons. We have a growing number of post-polio patients who feel exhausted after a meal. We found that, when their stomachs fill with food, the vagus is apparently over stimulated and triggers a drop in blood pressure and heart rate, causing feelings of fatigue and sometimes palpitations. Polio survivors have also been reporting another problem: Food sticking in the upper esophagus. We think this is due to the vagus not stimulating esophagus muscles to move the food downward. When food gets stuck, irritation triggers a painful esophagus muscle spasm that also stimulates the vagus nerve, causing blood pressure to drop and the heart to race or to slow.

Although their blood pressure drops, our post-polio patients rarely faint, which is consistent with our 1995 Post-Polio Survey finding that polio survivors do not faint any more frequently than those who didn't have polio. But the 1995 Survey did find that anyone who had fainted even *once* in their lifetimes reported significantly more daily fatigue than those who had never fainted. This suggests that damage to brain stem blood pressure control and vagus nerve neurons may be coupled to poliovirus damage to bulbar "brain activating system" neurons, those which our laboratory research suggests are responsible for post-polio brain fatigue.

The relationship between fatigue, brain stem damage and low blood pressure links polio survivors to another bunch of very tired folk: those with chronic fatigue syndrome. About one quarter of CFS patients have fatigue that is associated with low blood pressure or increased heart rate. Some CFS patients report fatigue when a hot shower or hot room causes blood pressure to drop, as do about one third of polio survivors. Other CFS patients have blue feet, just like our patients' "polio feet," suggesting that blood pooling in the legs contributes to low blood pressure.

Polio survivors should have a doctor take their blood pressure and heart rate lying, sitting and--if possible--standing. Polio survivors, who have fatigue associated with a drop in blood pressure or a slowed or racing heart, need to see a cardiologist who treats *low* blood pressure. Compression stockings, which push blood back toward the heart, and medications that increase the fluid in your blood or stop blood from pooling in the legs can be helpful. If fatigue follows eating, frequent, small, higher protein meals can prevent the stomach from getting too full and stimulating the vagus nerve. Polio survivors having trouble swallowing should see an ENT doctor. Eating smaller bites of softer foods and washing down each bite can prevent food from sticking in

the esophagus. For those who still have a sticking problem, a low dose of the muscle relaxant Klonopin taken 30 minutes before eating can prevent muscle spasms and help food slide down.

On the topic of Polio Survivors being given too much Oxygen 4/11/2015

Dr. Bruno's Post: "Oxygen: Too Much of a Good Thing?"

"We will give you a little bit of oxygen'." "No we will not!"

Exactly right. Oxygen is like Tylenol in the hospital or in an ambulance. Don't feel well? They "give you a little bit of oxygen."

As with any other drug, there needs to be a REASON for the prescription of oxygen (O2), because O2 DEPRESSES polio survivors' damaged breathing control center in the brain stem. Also, a weak diaphragm causes some polio survivors to retain carbon dioxide (CO2) which is toxic. If there are medical or surgical issues that cause MEASURED blood oxygen to drop to the low 90s, then both giving O2 and TREATING the cause could be lifesaving.

But, without a respiratory or other disease causing O2 to be in the low -- for example for coming out of surgery or using CPAP or Bi-Pap -- polio survivors should not just be given "little bit of oxygen" for no reason. If you just have apnea or shallow breathing during sleep, CPAP or Bi-Pap should bring your O2 into the normal range without need for extra O2.

CO2: THE GAS POLIO SURVIVORS HAVE TROUBLE GETTING RID OF.

Polio survivors retaining carbon dioxide is not discussed enough. I got a call from an anesthesiologist in North Carolina about a polio survivor who'd had her gall bladder removed and in the recovery room was "fighting the tube" placed in her windpipe during the surgery. Well, nearly every post-op patient "fights the tube." But, the nurses thought she was having trouble breathing, even though her measured O2 was 96%, so they turned up the O2. Turns out that the patient's trouble was retaining CO2; the extra O2 depressed her breathing, she went into respiratory arrest and died. The anesthesiologist almost cried when I explained this to him.

"Why don't we know about this!?" he asked.

I thought "If only North Carolina had the Internet where a doctor could search "surgery, breathing + Polio survivors" and find the Post-Polio Library and 'Preventing complications in polio survivors undergoing surgery'.

http://postpolioinfo.com/lib_surgical.php

Yes, yet again, polio survivors must always have a discussion with the anesthesiologist before any test (e.g., a colonoscopy) or surgery using anesthesia. They need to understand that polio survivors can retain CO2 and the dangers of O2 suppressing breathing.

On the topic of the IRS and Disability Deductions 4/9/2015

Dr. Bruno's Post: "It's Tax Time"

The IRS AND DISABILITY: What can you deduct as a medical expense?

"An item ordinarily used for personal, living, and family purposes (e.g., an electric can opener) will be recognized as an item purchased primarily for medical care...only if it is readily apparent that it prevents or alleviates a disease or disability."

Credit for the Elderly or the Disabled:

<http://www.irs.gov/pub/irs-pdf/p524.pdf>

What You Can Deduct as a Medical Expense:

<http://www.irs.gov/pub/irs-pdf/p907.pdf>

The following list highlights some of the medical expenses you can include in figuring your medical expense deduction.

Artificial limbs, braces, contact lenses, eyeglasses, and hearing aids.

The part of the cost of Braille books and magazines that is more than the price of regular printed editions. The cost and repair of special telephone equipment for hearing impaired persons. Grants for homes designed for wheelchair living; Cost and maintenance of a wheelchair or a three-wheel motor vehicle; Cost and care of a guide dog or other animal aiding a person with a physical disability; Premiums for qualified long-term care insurance, up to certain amounts; Improvements to a home that do not increase its value if the main purpose is medical care. (An example is constructing entrance or exit ramps). **

(See <http://www.trustadmin.com/pages/healthcarelist2.htm> for a detailed list).

** Discuss this information with your accountant.

[On the topic of a Wonderful New Book](#) 4/9/2015

Dr. Bruno's Post: NEW from random harvest e-Books (RandomHarvestBooks.com)

"Square Pegs, Round Holes 'n' Pigeonholes"

By Millie Malone Lill

Millie's Back and You Can Have Her!

Millie Malone Lill, the "Mark Twain of polio survivors," returns to random harvest with her combination of mid-western charm and razor-sharp wit in Square Pegs, Round Holes 'n' Pigeonholes. Join Millie in her native Iowa, on her trips through America and then into Canada, where's she's run off with a Canadian truck driver! It's scooter versus eighteen-wheeler...and if you know Millie, you know who wins that race, eh?

This book offers another 198 pages of pure Millie. If you are a polio survivor (or wish you were) you will love her new book as much as her first best-seller, *Hot Water, Orange Juice 'n' Kids*.

PRAISE for *Hot Water, Orange Juice 'n' Kids*...

..."Millie's writing? In a word, spectacular! In eight words: incredibly insightful, wonderfully witty, marvelously moving, and fabulously funny. Millie Malone Lill is one of my favorite writers, period."

..."A Midwesterner's delight, filled with humor and warmth. Millie finds life to be a stern taskmaster and still manages to find the fun in it. Her upbeat outlook is refreshing in these turbulent times."

..."I love Millie's humor! Just when you think she's serious you realize she has hit your funny bone with a serious tap! She describes life -- even the not so funny parts -- in ways that make you feel you can cope again."

..."Millie Malone has put together a delightful collection of thoughts and ideas, expressing them in her unique, humorous style. Many of her stories deal with the problems of living with a disability, something most people will be able to relate to at some point in life, and dealing with frustrations, which everyone can relate to at every time of life."

[On the topic of the FDA Staying "Quiet"](#) (4/8/2015)

Dr. Bruno's Post: *Who* will protect us from dangerous drug, herbs and spices if not the FDA? Why would it, when "Top FDA officials overseeing supplements (are) former leaders of the largest supplement industry trade and lobbying group?" This just tires me out and worries me...

<http://well.blogs.nytimes.com/2015/04/07/study-warns-of-diet-supplement-dangers-kept-quiet-by-f-d-a/?ref=todayspaper&r=0>

On the topic of a Podiatrist Adjusting or Changing a Brace (4/6/2015)

Question: "I have a new problem.. March 12th I went to my foot Dr. Got nails cut and my second toe on my leg with my AFO, was burning to the point it was hard to walk due to pain. He was dumbfounded when I had a blood blister on one of my hammer toes. Like" how did that happen?" So I walk on the tip where the blister is and in my brace. It's come back. The whole toe feels like fire. Anyone else have this? I think I use my toes for walking and balance a lot more than before, and I feel like if you blew on my I'd lose my balance."

Dr. Bruno's Response: " I don't like podiatrists prescribing polio survivors' braces. If you have a PPS rehabilitation doc, let her evaluate the brace. It sounds like it's too short. Polio survivors have great circulation, actually it's too good since they radiate body heat from their wide-open arteries and veins. But this sounds like a friction issue, not a blood flow problem. Please keep us posted!"

Second Question that applies to the first: "Thanks Dr. Bruno for answering. My toe is a hammer toe (so is my third toe). They both raise up and curl under, so I have a callus build up and a blood blister on one toe. My brace has a cut out area of the plastic & only have cushion under the hammer toes. I think its friction too, but what do I do to prevent it? I'm hoping it isn't going to my scooter full time. I feel like a Wee-bo wobble and fall down toy. Lol . I'll make an appt with my pps, rehab (brace) and podiatrist today.

Dr. Bruno's Response: "It looks like they have to rethink and maybe widen the cutout and cushioning under the brace/toe. You may have too much cushion or it's in the wrong place and pushing your toes together or against the shoe. There are open toe box shoes (shoes with a bigger space up front) that might reduce friction for you. Also you might benefit from a simple cushion to separate the toes. Your podiatrist should have thought of all of this. E-mail me if you need to at postpolioinfo@aol.com.

On the topic of "Tummy" Issues (4/5/2015)

Question: "Does anyone have tummy issues?"

Dr. Bruno's Response: You can find this article on our website: <http://postpolioinfo.com/library/SlowGuts.pdf>
In addition, there's digestive and diet information in The Polio Paradox.

On the topic of Creating a "Good Doc" Directory (4/5/2015)

Dr. Bruno's Post - Let's Start a "Good Doc" Directory...

Coffee House members are constantly in search of decent and competent rehabilitation doctors -- not even us old PPS dinosaurs, are virtually extinct -- who read Mia Farrow's Post-Polio Letter

<http://www.postpolioinfo.com/letter.php>

Or looked at the Post- Polio Library <http://www.postpolioinfo.com/library.php>
and learned something about PPS so that they are able to provide PPS treatment.

Let's start a "Good Doc Directory," polio survivors vouching for docs, not docs saying they're PPS experts but really have treated like one polio survivor:

- 1) Post the names, addresses and phone numbers of docs you've found to be decent and helpful in treating your PPS in the comments below.
- 2) Please make sure that the docs are STILL practicing AND treating polio survivors and don't have a ridiculous 12 month wait!
- 3) Please email the information to me at postpolioinfo.com. I will post the "Good Doc" Directory at postpolioinfo.com as the list grows.

Thank you for helping us to help each other!

On the topic of Polio being a “Cure” for Brain Tumors (4/1/2015)

Dr. Bruno’s Post – “I think I mentioned some of this in the other post (See Bruno Bytes, March 2015 below) but it’s good to keep this in mind for the polio treatment of cancer and for *all* therapies...

Here's What '60 Minutes' Didn't Tell You About The 'Miracle' Glioblastoma Treatment

<http://www.forbes.com/sites/arleneweintraub/2015/03/30/heres-what-60-minutes-didnt-tell-you-about-the-miracle-glioblastoma-treatment/>