



## Bruno “Bytes”

October, 2018

From Dr. Richard L. Bruno, HD, PhD  
Bits and Tidbits from the Post-Polio Coffee House

### On the topic of Shoulder Pain (10/1/2018)

Original Post: What seems to work best for those with chronic shoulder pain?

Dr. Bruno’s Response: A Diagnosis...then treating the problem. Pain is a symptom, not a diagnosis.

### On the topic of sharing information to with your Physician (10/1/2018)

Original Post: Just recently, my Physical Therapist told me about Post-Polio Syndrome. My primary care physical had never heard of post-polio until I mentioned it. She asked me if I would provide her with information about it -- she said she's eager to learn. What do you recommend I provide her?

Dr. Bruno’s Response: [Mia Farrow’s Letter](#), a copy of [The Polio Paradox](#) and a “link” to [www.postpolioinfo.com](http://www.postpolioinfo.com) (or) the [Encyclopedia of Polio and Post-Polio Sequelea](#).

### On the topic of AFM and the Polio Virus (10/5/2018)

Dr. Bruno’s Original Post: AFM is not, NOT the Polio Virus!



## Acute Flaccid Myelitis

### At a Glance

- CDC is concerned about AFM, a serious condition that causes weakness in the arms or legs.
- From August 2014 through October 2018, CDC has received information on a total of 396 confirmed cases of AFM across the US; most of the cases have occurred in children.
- Even with an increase in cases since 2014, AFM remains a very rare condition. Less than one in a million people in the United States get AFM each year.
- While we don’t know the cause of most of the AFM cases, it’s always important to practice disease prevention steps, such as staying up-to-date on vaccines, washing your hands, and protecting yourself from mosquito bites.

<https://www.cdc.gov/acute-flaccid-myelitis/afm-surveillance.html>

Additional Post: I wonder if these kids were vaccinated for Polio?

Dr. Bruno's Response: Since the cause isn't the poliovirus I wouldn't think polio vaccine would be an issue. The vaccines are very specific to the virus used. That's why the flu vaccine doesn't always work very well. The virus changes every year.

Additional Post: It's not the Poliovirus but is it a similar enterovirus?

Dr. Bruno's Response: The polioviruses are only three of more than 10 enteroviruses, the majority of which can cause symptoms identical to polio. It's still unclear which viruses cause acute flaccid paralysis in the United States but it could be several. Remember there are 60,000 cases of non-polio enterovirus paralysis in India every year caused by several different non-polioviruses.

### [On the topic of great Walking Cane Designs for Winter](#) (10/16/2018)

Dr. Bruno's Original Post: Who BUT a polio survivor would come up with such super designs?

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### [On the topic of a Blood Test for PPS](#) (10/23/2018)

Question: Recently I had a fever with muscle and chest pain. The only abnormal blood tests showed high C-reactive protein and high creatine kinase. My blood pressure and cholesterol are normal, have never smoked and I'm thin. Because of the chest pain I had an angiogram, which was normal. Could high CRP and high CK be related to PPS?

Dr. Bruno's Response: C-reactive protein (CRP) is a blood marker for inflammation somewhere in the body. High CRP can be seen with Type 2 diabetes, autoimmune diseases and cancers. Could inflammation somewhere in your body, as indicated by your elevated CRP, be related to PPS? Fifty consecutive patients evaluated at The Post-Polio Institute had CRP measured. The patients were on average 59 years old and 55% were women. Thirteen percent had an elevated CRP, 66% of whom were men. CRP was on average nearly three times the normal value. However, there was no significant difference between those with high and normal CRP on self-ratings of daily fatigue, difficulty with self-care or ability to perform activities inside or outside of the home. So, there is no evidence that elevated CRP or inflammation is related to PPS, either to post-polio fatigue or difficulty in functioning.

Recent studies have found that elevated CRP is related to having a heart attack or stroke. The theory is that a bacterial or viral infection (although definitely not a poliovirus infection) somehow inflames arteries and causes pieces of cholesterol clogs to break off. Our 1985 National Survey found no more heart disease or high blood pressure in polio survivors than in the general population. But two studies found that 5% more male post-polio patients had abnormally elevated cholesterol as compared to the general population. In one of the studies only 33% of those with high cholesterol had been given a cholesterol screening test by their doctor and not even 25% were on cholesterol-lowering medications, like the statin drugs such as Lipitor, Pravachol and Zocor. This is not good since reducing cholesterol reduces heart attack risk. What's more, research has shown that taking statins to reduce cholesterol can also lower CRP and may thereby increase survival even after having a first heart attack.

Statin drugs provide a connection between CRP and CK -- creatine kinase -- in polio survivors. CK is an enzyme released when muscle is damaged. One half of one percent of anyone taking a statin develops muscle breakdown, which causes muscle pain (especially in the calves), muscle weakness and an increase in CK. Even without muscle breakdown or an elevated CK, some polio survivors report muscle pain or weakness when taking a statin, usually one of the older statins, like Lipitor. And polio survivors can have an elevated CK without taking a statin. Two studies found that 40% of polio survivors had abnormally elevated CK, with men having significantly higher CK than did women. In one study, CK increased with the number of steps polio survivors walked in a day. In our fifty Post-Polio Institute patients, 21% had abnormally elevated CK (on average about 33% higher than normal) with men again having higher CK than did women. But, as with CRP, there was no significant difference between those with high and normal CK on self-ratings of daily fatigue, difficulty with self-care or the ability to perform activities inside or outside of the home. However, an elevated CK may mean that polio survivors are making their muscles work too hard and are causing muscle fibers to break down.

So, neither CRP nor CK is related to fatigue or loss of functional abilities in polio survivors. However, all polio survivors need to have their cholesterol and CRP measured to assess heart disease risk. And since an elevated CK indicates muscle breakdown, either from taking a statin or from muscle overuse, polio survivors should have CK measured before taking a statin. If you are worried about possible muscle weakness or breakdown with the statins, or the newer cholesterol-lowering drugs like Zetia and Vytorin, ask your doctor about using older medications like slow-acting niacin or bile acid sequestrants. Besides medication, polio survivors need to eat high fiber foods, reduce saturated fat, treat high blood pressure and stop smoking to keep their tickers ticking.

### [On the topic of CDC Travel Warnings](#) (10/28/2018)

Dr. Bruno's Original Post: The US Centers for Disease Control and Prevention (CDC) published 5 separate Alert - Level 2, Practice Enhanced Precautions, regarding the increased spreading of the polio virus on October 26, 2018.

Even if you were vaccinated as a child or have been sick with polio before, you may need a booster dose to make sure you are protected, said the CDC.

## **Polio Outbreak Warning Upgraded in 5 Countries**

### **[CDC issues Level 2 Travel Alerts for the Democratic Republic of the Congo, Nigeria, Papua New Guinea, Somalia, Syria](#)**

October 27th, 2018 – The US Centers for Disease Control and Prevention (CDC) published 5 separate Alert - Level 2, Practice Enhanced Precautions, regarding the increased spreading of the polio virus on October 26, 2018.

These CDC Travel Alerts for the Democratic Republic of the Congo, Nigeria, Papua New Guinea, Somalia, and Syria note that progress had been made in these countries, but that the contagious virus continues to spread. The CDC strongly recommends that all travelers to these 5 countries be vaccinated fully against polio. In addition, adults who have been fully vaccinated should receive a single lifetime booster dose of the polio vaccine.

Even if you were vaccinated as a child or have been sick with polio before, you may need a booster dose to make sure you are protected, said the CDC.

Moreover, long-term visitors staying more than 4 weeks may be required to show proof of polio vaccination when leaving these polio-infected countries. To meet this travel departure requirement, long-term visitors should receive the polio vaccine between 4 weeks and 12 months before the date of departure, to ensure their immune systems immunized against polio.

#### These upgraded Alert - Level 2 warnings are for these countries:

Democratic Republic of Congo: Cases of vaccine-derived polio have been reported in the Democratic Republic of the Congo, according to the World Health Organization (WHO). The cases occurred in Haut-Lomami Province and in Maniema Province.

Nigeria: The Nigerian Ministry of Health has reported several cases of poliovirus in the state of Borno in northeastern Nigeria. The Nigerian government is conducting widespread immunizations to prevent further transmission.

Papua New Guinea: An outbreak of polio has been reported in the provinces of East Sepik, Madang, Eastern Highlands, Enga, Jiwaka, Morobe Province, and National Capital District in Papua New Guinea. This outbreak is caused by vaccine-derived poliovirus (VDPV), a sign of low oral polio vaccine coverage in the country.



Somalia: A polio outbreak has been reported in Mogadishu and the Hiran and Middle Shabelle regions. This outbreak is caused by vaccine-derived poliovirus (VDPV), a sign of low oral polio vaccine coverage in the country.

Syria: Cases of vaccine-derived polio have been reported in Syria, according to the Global Polio Eradication Initiative. Most cases have been reported in Mayadeen District, in Dayr az Zawr Province.

A vaccine-derived poliovirus (VDPV) is a strain of the weakened poliovirus that was initially included in oral polio vaccine (OPV) and that has changed over time and behaves more like the wild or naturally occurring virus, says the CDC.

This means it can be spread more easily to people who are unvaccinated against polio and who come in contact with the stool or respiratory secretions, such as from a sneeze, of an infected person.

For this reason, the eradication of polio requires stopping all OPV in routine immunization, as soon as possible after the eradication of wild poliovirus (WPV) transmission. The oral polio vaccine, which is made from a weakened strain of the poliovirus, is given as drops in the mouth to protect again.

To protect Americans against all 3 types of WPV, the CDC has exclusively endorsed the inactivated polio vaccine (IPV), which requires 4 doses, since 2000. Travel vaccination appointments can be scheduled at Vax-Before-Travel and vaccine discounts can be found here.

Polio is a crippling and potentially deadly disease that affects the nervous system. It is spread through contact with the feces of an infected person. It is also spread by drinking water or eating food that is contaminated with infected feces.

Most people with polio do not feel sick. Some people have only minor symptoms, such as fever, tiredness, nausea, headache, nasal congestion, sore throat, cough, stiffness in the neck and back, and pain in the arms and legs.

In rare cases, polio infection causes permanent loss of muscle function. Polio can be fatal if the muscles used for breathing are paralyzed or if there is an infection of the brain. For specific information related to US travelers and guidance on interpreting any ad hoc doses of polio vaccine in relation to the individual's vaccine schedule, please consult the CDC MMWR, "[Interim CDC Guidance for Polio Vaccination for Travel to and from Countries Affected by Wild Poliovirus](#)," specifically the section titled Interim Vaccination Guidance to Comply with WHO International Health Regulations Temporary Recommendations for Countries Designated as "Polio-infected."

For more information on OPV cessation, please visit the [Global Polio Eradication Initiative's website](#) or the [Polio Vaccine Information Statement \(VIS\)](#) for more information. Vaccines, like any medicine, can have side effects. You are encouraged to report negative side effects of vaccines to the FDA or CDC.

[https://www.precisionvaccinations.com/cdc-issues-level-2-travel-alerts-democratic-republic-congo-nigeria-papua-new-guinea-somalia-syria?fbclid=IwAR11rM3L79Qqm6g2VSwOHfmb2LjBusKb\\_NOZ2JQtN5LMr9NGX9t-DJNYXE](https://www.precisionvaccinations.com/cdc-issues-level-2-travel-alerts-democratic-republic-congo-nigeria-papua-new-guinea-somalia-syria?fbclid=IwAR11rM3L79Qqm6g2VSwOHfmb2LjBusKb_NOZ2JQtN5LMr9NGX9t-DJNYXE)

### On the topic of Emotional Stress and PPS (10/31/2018)

Original Post: I had major leg surgery with all sorts of rods inserted which saved my leg, but put extra pressure on my other leg which was also paralyzed during original polio. I was in PT for several months with a knowledgeable PT who followed polio information. However any physical therapy seemed to increase the weakness. I was placed in an assisted living, use a power chair in the building, walker in the room, and a scooter outside. I still drive without trouble except for our friend fatigue. Now my question is can emotional, personal pressures cause me to loose strength in my legs reducing my mobility? Living in an assisted living facility has very difficult.

Dr. Bruno's Response: In our 1st National Survey in 1985, EMOTIONAL STRESS was the #2 cause of PPS symptoms after physical exertion and exercise. Here is an article: [Emotional Stress and PPS](#)

# I AM THE FACE OF POLIO TODAY



Chris Templeton  
Actor, Polio Survivor



## POLIO SURVIVORS ARE NO LONGER POSTER CHILDREN

We are accomplished adults being disabled in midlife by Post-Polio Sequelae (PPS), unexpected symptoms – overwhelming fatigue, muscle weakness, muscle and joint pain, sleep disorders and trouble swallowing and breathing – that affect 15 million polio survivors around the world, one million in America.

Unfortunately doctors - even polio survivors themselves - don't know that PPS exist and can be treated.

Please show this to your doctors and ask them to visit:

**POSTPOLIOINFO.COM**

With your help every doctor will learn about the cause and treatment of PPS and give polio survivors the care we so desperately need. *Thank you!*

A handwritten signature in cursive script, likely belonging to Mia Farrow.

**Mia Farrow, Polio Survivor**

Honorary Chairperson, International Post-Polio Task Force

Additional Bruno “Bytes” are available for you to share in the [Encyclopedia of Polio and Post-Polio Sequelae](#).

Scroll down the page (through the [Current Month](#) posts).

Previous months are located there, and are available by “clicking” on them, in easily printable PDF format

Would you like to see Dr. Bruno in “action”? Check out the [Video Library](#).

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