



## Bruno “Bytes” – January, 2017

(Bits and Tidbits from the Post-Polio Coffee House)

Available through a “link” from [www.postpolioinfo.com](http://www.postpolioinfo.com)  
(or) directly through <http://www.papolionetwork.org/bruno-bytes.html>

### On the topic of “Persevering” (1/3/2017)

Original Post: I walk very slowly & stiffly. Should I get a Mobility Scooter or persevere?

Dr. Bruno’s Response: WHY are you stiff and slow? Don’t assume PPS is everything. Talk to your doctor.



Perhaps some general blood work is in order and maybe some stretching with a PPS knowledgeable PT.

Additional Post: Having a mobility scooter isn't throwing in the towel, it offers freedom, independence and mobility without pain. Go for it!

### On the topic of Medical Alert Systems (1/5/2017)

Dr. Bruno’s Original Post: This is an interesting article that reviews Medical Alert Systems [HERE](#)

[https://bestcompany.com/medical-alert-systems/?sp=aff&gclid=01\\_61884910\\_89a808e8-95f2-4bf8-9a1f-a1862fd24ecb&utm\\_source=Affiliate&utm\\_medium=affiliate&utm\\_campaign=AFF\\_279124\\_478355&afid=279124&sid=478355&AffiliateReferenceID=545979048](https://bestcompany.com/medical-alert-systems/?sp=aff&gclid=01_61884910_89a808e8-95f2-4bf8-9a1f-a1862fd24ecb&utm_source=Affiliate&utm_medium=affiliate&utm_campaign=AFF_279124_478355&afid=279124&sid=478355&AffiliateReferenceID=545979048)

### On the topic of Bipap and Medicare (1/10/2017)

Original Post: Does Medicare pay for BiPAP and Cough “assist” ?

Dr. Bruno’s Response: Typically yes, at 80%. Medicare is going to require that you have a sleep study for BiPAP (which is probably a good idea). Using BiPAP at night, or even better a volume ventilator, is like a wheelchair for your diaphragm, putting it on rest for the night and allowing the neurons to be ready for action during the day.

### On the topic of Raynaud’s Disease and PPS (1/10/2017)

Original Post: Is Raynaud's disease at all associated with post-polio?

Dr. Bruno’s Response: Raynaud's disease is not related to polio. In fact the mechanism of cold hands and Raynaud's is exactly the opposite of the mechanism of cold hands and feet in polio survivors. Open finger “therapy gloves” can be a big help.

You can read about it [Here](#):

“Frozen Fingers and Purple Polio Feet”

### On the topic PPS and Bladder Weakness (1/12/2017)

Original Post: Does anybody have bladder problems? My problem is that my muscles are too weak to void completely.

Dr. Bruno’s Response: Here’s something to talk to your doctor about.

This is a good article: Bladder Control and Osteoporosis

#### **Treating Incontinence in Women with Osteoporosis**

By RONI CARYN RABIN FEBRUARY 24, 2016 11:58 AM 17

Many women with osteoporosis also suffer from incontinence. Now a Canadian clinical trial has found that simple pelvic floor muscle training can significantly reduce leakage episodes.

Women with osteoporosis are at risk for incontinence because fractures of the lumbar spine can make them slump, putting more pressure on the pelvic floor, said Chantale Dumoulin, a professor in the faculty of medicine at the University of Montreal and senior author of the study, published online earlier this month in *Menopause: The Journal of the North American Menopause Society*.

In the study, 46 post-menopausal women with osteoporosis or low bone density and occasional incontinence reduced their leakage episodes by 75 percent after just 12 weekly sessions of physical therapy. A comparison group of similar women who did not get physical therapy saw no improvement, the study found. A year later, the 23 women who had three months of physical therapy maintained their improvement, while the incontinence of the 23 women in the control group, who received only education about osteoporosis, had worsened, researchers found.

The findings are important because exercise helps in the treatment of osteoporosis, but those with incontinence are prone to leaking urine when they're physically active, deterring them from exercising.\*

The physical therapy regimen used in the clinical trial involved one hour-long session of physical therapy including pelvic floor muscle-training, followed by 30-minute weekly sessions for 11 weeks. Although pelvic floor muscle training is widely prescribed for the prevention of urinary incontinence in women, researchers said this was the first study to evaluate its use in older women with both osteoporosis and either stress incontinence or urge incontinence.

“The main message for women who have osteoporosis is that they should do pelvic floor exercises even if they don't have incontinence, because fractures of the lumbar spine cause them to be slumped, and that puts more pressure on the pelvic floor,” said Dr. Dumoulin.

\*Polio Survivors should see their doctor and must manage this with a PPS knowledgeable PT.

<http://well.blogs.nytimes.com/2016/02/24/treating-incontinence-in-women-with-osteoporosis/?emc=eta1>

Additional Post: This article sounds good for able bodied people but for those of us that can't get up and down on the floor anymore, can these exercises be done lying in bed? Also what exactly are the exercises? Dr. Bruno's Response: They are the Kegel exercises. That's why you need to see your doctor and then see a PT. They could be done -- as always WITHOUT FATIGUING yourself -- in bed.

## What Are Kegel Exercises?

By Edward C. Geehr, M.D., LifeScript Chief Medical Officer  
Published December 09, 2010

The floor of the female pelvis contains muscles that surround the openings of the urethra, vagina and rectum. Muscles attach to the front, back and sides of the pelvic bones. Two of these muscles do most of the support work. The biggest one stretches like a hammock, while the other is shaped like a triangle.

Pelvic muscles may weaken due to age, obesity and childbirth, leading to urinary incontinence. Kegel exercises are intended to strengthen pelvic floor muscles, leading to better bladder management. With as little as a few minutes of Kegel exercise each day, women may improve their symptoms. –

See more at: [http://www.lifescrript.com/health/centers/oab/tips/what\\_are\\_kegel\\_exercises.aspx#sthash.XZX5D6xF.dpuf](http://www.lifescrript.com/health/centers/oab/tips/what_are_kegel_exercises.aspx#sthash.XZX5D6xF.dpuf)

## On the topic of “Problem” Drinking (1/16/2017)

Dr. Bruno's Original Post: This article is a reminder that folk with multiple chronic health conditions (and PPS is by itself a multiple chronic health condition) can be problem drinkers. It's an outstanding warning.

## Problem Drinking in Older Adults

Article ID: 667556

Released: 12-Jan-2017 9:05 AM EST

Source Newsroom: University of Georgia

Newswise — Athens, Ga. — Older adults suffering from multiple chronic health conditions and depression are nearly five times as likely to be problem drinkers as older adults with the same conditions and no depression, according to researchers at the University of Georgia. Their study is the first to document the connection between multiple chronic illnesses, depression and alcohol use in seniors. This information could help health care providers identify which older adults are most likely to experience problem drinking and lead to better preventive care for this segment of society.

The study, conducted by researchers from the UGA School of Social Work, utilized data from the National Social Life, Health and Aging Project, a nationwide survey of older adults that is funded by the National Institutes of Health. Researchers looked at more than 1,600 individuals aged 57 to 85 who identified as active alcohol consumers.

Among problem drinkers, or individuals who reported a high amount of negative consequences associated with alcohol use, the researchers found that more than half—66 percent—reported having multiple chronic health conditions, or MCC, and 28 percent reported having symptoms of depression. The researchers also found that older adults who experienced MCC combined with depression were those who experienced the highest likelihood of problem drinking.

“These findings suggest that effective training in screening and referral for mental health and alcohol use issues for health care providers of older adults may better serve the approximate 4 million older adults who currently experience problem drinking in the U.S.,” said Orion Mowbray, assistant professor at the UGA School of Social Work and lead author of the study.

Previous efforts to prevent and manage disease in older adults have focused on a single disease at a time, said Mowbray. Few physicians consider the combination of multiple chronic conditions in connection with depression as a potential sign for increased alcohol misuse, although screening and follow-up counseling for behavioral problems is known to help.

“There is sufficient evidence that even brief interventions delivered in medical-related settings can have a positive influence on reducing problem drinking among most older adults,” said Mowbray. “These interventions can include screening for signs of depression in individuals with long-term health problems, engaging the individual in a conversation about the risks of problem drinking, and providing a referral for brief alcohol-related treatment.”

Other contributors to the paper include Tiffany Washington, assistant professor of social work, social work doctoral student Greg Purser and Jay O’Shields.

The study, “Problem drinking and depression in older adults with multiple chronic health conditions,” was published in the October issue of the Journal of the American Geriatrics Society, and will be presented this month at the Society for Social Work and Research’s annual conference in New Orleans. It is available online at <http://onlinelibrary.wiley.com/doi/10.1111/jgs.14479/full>

<http://www.newswise.com/articles/view/667556/?sc=mwhnmultiple>

**[On the topic of How the Type 2 Polio Virus has “Evolved”](#)** (1/17/2017)

Dr. Bruno’s Original Post: [Oh No ! The Type 2 Polio Virus has Evolved.](#)

(continued . . .)

# Type 2 Polio Virus Strain Can Cause More Damage Than Before, But How? Has The Virus Evolved?

By Sai , Jan 11, 2017 07:01 PM EST



A significant number of experts and pediatricians in Jaipur, India have recently expressed their concern over children being exposed to Type 2 virus strain of polio after it was found that the state has been reeling under shortage of inactivated polio vaccine (IPV). Before the situation has happened, it was found that children are being given the IPV for protection against Type 2 polio virus strain. However, after there has been a shortage of IPV, the health department has only been able to administer oral polio vaccine (OPV) for Type 1 and Type 3 virus strains to children.

## Type 2 Polio Virus Strain Can Cause More Damage than Before, Here's How

According to reports revealed by Times of India, the OPV that is usually given as a means of primary protection against the virus cannot be used against Type 2 virus strain. The World Health Organization has already clarified that the virus has been eradicated from the country; however, experts and pediatricians alike have also expressed their fear by saying that the type 2 strain still poses a big threat. Furthermore, in one of his statements reported by [Healthworld](#), pediatrician and neonatologist Dr. Tarun Patni believes that all newborns, who have not received IPV, are exposed to the risk of infection. Patni, who also happens to be a state representative of the Indian Academy of Pediatrics (IPA), has also revealed that only IPV can give protection against Type 2 strain. Meanwhile, Rajasthan, a northern Indian state bordering Pakistan has been found to be in the middle of its crucial fight against polio as it shares the boundary with Pakistan where new cases of polio are still being reported to date. On the other hand, in one of her interviews, Narottam Sharma, chief medical health officer for Jaipur has also revealed that health authorities have already alerted the center about IPV shortage.

Watch the CDC Interview that accompanies this article [HERE](#)

<http://www.itechpost.com/articles/73510/20170111/oh-type-2-polio-virus-strain-cause-more-damage-before.htm>

## On the topic of a “New” Science to Eradicate Polio (1/20/2017)

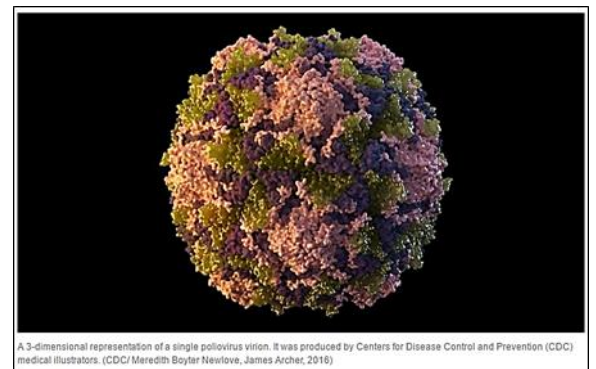
Dr. Bruno’s Original Post: A Wonderful Shell Game –

### **To eradicate polio, Scientists turn virus into a shell of itself**

By: Bradley J. Fikes, Contact Reporter  
San Diego-Union Tribune 1/19/2017

British scientists have generated a harmless shell of the polio virus, which could potentially be used as a safe and stable polio vaccine to finish the job of eradicating the disease.

Using recombinant polio virus strains, the scientists grew empty protein shells in human cells. They also added stabilizing structural characteristics to produce the shells of the three strains used in polio vaccines. Without the infectious genetic contents, the protein shells can’t cause polio. When given to mice and rats genetically modified to be vulnerable to polio, the virus shells caused the animals to make high levels of polio antibodies, giving them protection. Additionally, the scientists say the polio shells can be stored for many months at room temperature and retain their effectiveness. This is desirable for use in areas where polio remains at large, which tend to have poor health care infrastructures.



The study was published Thursday in the open-access journal PLOS Pathogens. It can be found at [HERE](#). Andrew Macadam is the study's senior author. Helen Fox is the first author. Both are of the National Institute for Biological Standards and Control, Potters Bar, Hertfordshire.

Polio's reach was greatly reduced with the first safe and effective vaccine, a killed-virus vaccine introduced by Dr. Jonas Salk in 1955. In 1961, a live-virus version was introduced by Dr. Albert Sabin. The last case of wild polio in the Americas took place in 1979, in Peru. Today, the only cases of polio occur in Afghanistan, Pakistan and Nigeria. Total eradication of the disease, as was done with smallpox, appears feasible.

But getting vaccines to remote areas without access to good health systems or even reliable electricity remains an obstacle. A vaccine that can be stored without refrigeration for extended period of time would help.

"The challenge now is to transfer these designs to production systems that can deliver large quantities cheaply so that a vaccine for global use is feasible," Macadam said in a statement.

The study is a scientific "tour de force," said Michael Oldstone, a prominent virologist at The Scripps Research Institute in La Jolla.

"Further, similar approaches for other viral vaccines might be of useful," Oldstone said. "The risk to workers for producing infectious virus vaccine would be reduced. Certainly work on this technique to make safer and useful vaccines should be continued. Oldstone cautioned that it's not clear whether work in transgenic rodents, who do not naturally have receptors for polio, will be applicable to humans. It's also unclear how the vaccine would be tested in people, because the disease is already nearly extinct.

"Eliminating the need for any live virus to produce a vaccine [biologic vaccine] and making a chemical vaccine with equivalent or excessive immunogenicity and protection is worthwhile and should make production safer and logistically simpler," Oldstone said.

"However the task is challenging as clinical trials need to be done prior to approving and licensing this vaccine or family of vaccines. So this is the early stage and if it comes to fruition is unknown."

<http://www.sandiegouniontribune.com/business/biotech/sd-me-polio-vaccine-20170119-story.html>

### [On the topic of Arthritis](#) (1/23/2017)

Original Post: Just wanted to see if there are many others with the same problem as me. I have extensive osteoarthritis. The worst of it is in my neck and spine. Both legs were affected by polio and have PPS. I can't sit t or stand too long. The nasty arthritis began about the same time as when PPS set in. Is there any connection between polio and osteoarthritis?

Dr. Bruno's Response: Osteoarthritis is inflammation in and wearing down of a joint caused by wear & tear. Think of the wear and tear your shoulders took walking on crutches, instead of your legs for decades, or the decades of friction in a knee that didn't have the muscles to support it. Imagine the wear and tear in your back muscles on one side paralyzed but muscles on the other side pulling hard in the opposite direction...or no muscles at all making your vertebra unstable and slipping back-and-forth. Is arthritis associated with PPS? You bet.

Obviously, "Conserve to Preserve" applies to your joints. But anti-inflammatory medications can be of help when there's little to preserve. Also, we've had numbers of Post-Polio Institute patients whose joints are "shot" do very well on it after knee and hip replacements. These are two reasons to see a rehabilitation doc (physiatrist) for diagnosis and treatment.

### [On the topic of a Canadian Documentary](#) (1/23/2017)

Original Post: Here's a short documentary on post polio syndrome broadcast by the Canadian Broadcasting Corporation in 1986 - 31 years ago. It's well done.

<http://www.cbc.ca/archives/entry/post-polio-syndrome-the-sequel>

## On the topic of Falling (1/24/2017)

Dr. Bruno's Original Post: "I'VE FALLEN AND I CAN'T GET...HURT?"

### *The Right Way to Fall*

By KATE MURPHY JAN. 24, 2017

Rare is the individual who hasn't tripped over a pet or uneven pavement, tumbled off a bike, slipped on ice or maybe wiped out skiing or skating. Some get injured, while others go unharmed — often claiming it's because they knew how to fall.

According to paratroopers, stunt professionals, physical therapists and martial arts instructors, there is indeed a "right way" to fall — and it can save you a lot of grief if you know how to do it. Although often associated with older people, falls occur at any age and are the most common cause of injury seen in emergency rooms in the United States. The Agency for Healthcare Research and Quality estimates that more than a third of emergency room visits, around 7.9 million a year, are caused by falls.

"As physical therapists we talk a lot about preventing falls, but what we don't talk about is what to do when you actually do fall," said Jessica Schwartz, a physical therapist in New York City who trains athletes and people with prosthetic limbs to fall without hurting themselves. "It's almost inevitable you are going to fall, so you really should know what to do." The number one thing to remember, she said, is to protect your head. So if you find yourself falling, pivot to your side and tuck in your head.

"Have you seen those slip and fall cartoons where the characters fall flat on their back or face? Don't do that," said Dr. Schwartz. "You'll hit your head like a coconut and get a concussion," and the reverse motion, or bounce, of your head after impact "will give you something like whiplash." Moreover, falling straight forward or backward raises the risk of damaging your spine and vital organs.

The other thing to avoid, she said, is "foosh," an acronym for "falling onto outstretched hands." If you do that, all the force of impact will be concentrated there, raising the risk of breaking your wrist. You similarly don't want to come crashing down on your knee so you break your kneecap or do that maneuver where you kind of pedal with your feet to catch yourself, which can lead to broken bones in your foot and ankle.

Instead, if you feel yourself falling, experts said you should bend your elbows and knees and try to take the hit on the fleshiest parts of your body, like the side of your thigh, buttocks and shoulder. "Aim for the meat, not bone," said Kevin Inouye, a stuntman and assistant professor of acting, movement and stage combat at the University of Wyoming. "Your instinct will be to reach out with hands or try to catch yourself with your knee or foot, but they are hard and not forgiving when you go down."

The key is to not fight the fall, but just to roll with it, as paratroopers do. "The idea is to orient your body to the ground so when you hit, there's a multistep process of hitting and shifting your body weight to break up that impact," said Sgt. First Class Chuck Davidson, master trainer at the Army's Advanced Airborne School at Ft. Bragg, N.C. A paratrooper's goal is to fall sideways in the direction the wind is carrying them — in no way resisting the momentum of the fall. When the balls of their feet barely reach the ground, they immediately distribute the impact in rapid sequence up through the calf to the thigh and buttocks. Then they roll over on the latissimus dorsi muscle, the large, flat muscle running laterally down the side of your back, and kick their feet over, shifting their weight so they end up supine with legs bent in front of them.

The procedure is strikingly similar to how martial arts practitioners learn to take a fall when they are, say, thrown over someone's shoulder or have their legs knocked out from under them. "I would say the principles we follow are: Accept that you're falling and go with it, round your body, and don't stiffen and distribute the energy so you take the fall in the widest area possible," said Paul Schreiner, a black belt jiu jitsu instructor at Marcelo Garcia Academy in New York City.



While martial arts falls often have a gymnastic aspect, with rather elegant and snappy kinds of somersaults, it's still all about spreading out the force of impact. "There may be an aesthetic component, but what it does is save the body," said Mr. Schreiner. "If you don't take the fall in any single place, you'll still walk out sore, but you'll walk out of there."

Difficult as it may sound as you're hurtling toward the ground — medical bills and disability flashing through your mind — experts said it's important to relax as you fall. You're less likely to hurt yourself if you soften up all your muscles and exhale. Rigidity is your enemy, while pliability is your friend. "As unfair as it is, that's why people who are drunk" tend to be the ones who "don't get hurt in car crashes," said Mr. Inouye. "They are loose and just flop around."

Of course, you will be better able to loosen up, pivot to your side, tuck and roll if you are in good physical condition. "If you have a room full of soccer players and computer desk workers and go around knocking people over, you can bet the soccer players are going to be less likely to get hurt because of their superior strength, agility and coordination," said Erik Moen, a physical therapist in Kenmore, Wash.

#### COMMENTS

But that doesn't mean you have to be an elite athlete or paratrooper to fall the "right way." Young children are arguably the best fallers because they have yet to develop fear or embarrassment, so they just tumble and roll without tensing up and trying to catch themselves.

Physical therapists can be helpful in assessing your weaknesses and prescribing do-at-home exercises to improve your strength and agility (for example, jumping from side to side and on and off platforms or steps) so that you will be better able to execute a fall as well as lessen the risk that you will fall in the first place.

<https://www.nytimes.com/2017/01/24/well/move/the-right-way-to-fall.html?ref=todayspaper>

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<http://www.papolionetwork.org/bruno-bytes.html>

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