On the topic of Managing Fear

Dr. Bruno’s Original Post: COVID "FEAR vs CONTROL COLUMNS" for POLIO SURVIVORS

Back in 1985 we discovered that polio survivors were Super Type A: driven, anxious, controlling perfectionists. A few years later we discovered why. Having had polio, plus the draconian ways it was dealt with -- including isolation and quarantine -- were the ideal circumstances to create anxious and controlling Type A perfectionists.

Today a virus once again has polio survivors isolated and afraid, television and the Internet continuously providing terrifying but conflicting and uncertain information about the chance of catching COVID-19 and when the quarantine will be over. How could the repetition of isolation and helplessness as happened during the polio epidemics not fuel sometimes-overwhelming fear in polio survivors?

" FEAR vs CONTROL COLUMNS "

With that said, it might help to turn off the TV, take a deep breath and write down “Fear columns” and “Control columns” listing the reality of your fears and what you already are doing to take control of your own life…

FEAR COLUMNS:
List your FEARS and next to them the LIKELIHOOD of each becoming a REALITY:

<table>
<thead>
<tr>
<th>Fear</th>
<th>Reality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starving to Death</td>
<td>Won’t Happen</td>
</tr>
<tr>
<td>Losing Medicare/Medicaid, SSI/SSDI</td>
<td>Won’t Happen</td>
</tr>
<tr>
<td>Losing Connection with Everyone</td>
<td>Highly Unlikely</td>
</tr>
<tr>
<td>Not Getting Needed Medication</td>
<td>Very Unlikely</td>
</tr>
<tr>
<td>Not Getting Needed Medical Attention</td>
<td>Unlikely</td>
</tr>
<tr>
<td>Broken Assistive Device (e.g., Wheelchair, Bi-Pap)</td>
<td>Possible</td>
</tr>
<tr>
<td>Unable to Buy Toilet Paper</td>
<td>Likely</td>
</tr>
<tr>
<td>Any American 65 or older (from CDC*):</td>
<td></td>
</tr>
<tr>
<td>Catching COVID</td>
<td>.04% Chance</td>
</tr>
<tr>
<td>Needing ICU Admission</td>
<td>.02% Chance</td>
</tr>
</tbody>
</table>


Continued . . .
CONTROL COLUMNS:
List each thing you’re doing to TAKE CONTROL and PROTECT YOURSELF and HOW OFTEN you are doing them:

<table>
<thead>
<tr>
<th>Control</th>
<th>Reality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Distancing</td>
<td>90% of the time</td>
</tr>
<tr>
<td>Staying At Home</td>
<td>95% of the time</td>
</tr>
<tr>
<td>Washing Hands After Being Outside</td>
<td>100% of the time</td>
</tr>
<tr>
<td>Visiting People With COVID symptoms</td>
<td>0% of the time</td>
</tr>
<tr>
<td>Watching TV News</td>
<td>80% of the time</td>
</tr>
</tbody>
</table>

Looking at the columns, you can see how unlikely terrible outcomes are, how much you already are taking control to protect yourself and where you may need to make changes to prepare for problems (e.g., finding a wheelchair repair person) and take better care of yourself (e.g., turning off the TV).

List your own FEARs and their LIKELIHOOD and things you are doing to TAKE CONTROL so fear doesn’t control you. (And turn off the TV news!)

Note: This COVID-19 “FEAR vs Control Columns” article for Polio Survivors is available for download and sharing in the Articles Section, under Psychology in the Encyclopedia of Polio and PPS.

On the topic of PPS and Stress

On the topic of PPS and Stress

Original Post: Do other people find that stress brings on post-polio attacks?

Dr. Bruno’s Response: There are no "post-polio attacks." But our 1985 survey found that EMOTIONAL STRESS was the 2nd leading cause of PPS symptoms, with PHYSICAL EXERTION AND EXERCISE being the 1st.

One of the most effective ways to manage stress can be learning how to “breathe”.

"The Two Breath Time Out"

Maureen McGovern, two-time Grammy and Tony Award nominee and founder of the "Works Of Heart Project for Music and Healing," has recorded something special for everyone who wants to annihilate stress. Maureen’s soothing voice guides you through Dr. Richard Bruno’s relaxation exercise, "The Two Breath Time Out," from How to Stop Being Vampire Bait.

You can find it here:
Guided Relaxation in MP4 Format  Guided Relaxation in MP3 Format:

It has a permanent home and is easily available for listening and download under the topic of Psychology in the Encyclopedia of Polio and PPS.
On the topic of “Can Potatoes Be Poison”?

**Comment:** When I quit eating the nightshades (potatoes, tomatoes, eggplants, hot peppers) my legs felt so much better. Potatoes are the worst and made me feel like I was dragging logs around. The chemical found in these plants is real and has been researched. It is solanine and is actually a poison.

**Dr. Bruno’s Response:** Solanine can cause toxic symptoms but doses of 200–400 mg for adults are needed. Most commercial potatoes have a solanine content of less than 0.2 mg, 1,000 times less than a toxic dose. However, potatoes that have been exposed to light and have started to turn green can show higher concentrations. But if you feel better without potatoes, listen to your body.

On the topic of PPS Diagnosis

**Original Post:** What is the difference between the diagnosis of Post-Polio Syndrome ICD-10 G14 and Sequelae of Poliomyelitis ICD-10-CM B91? My husband received a diagnosis of Post-Polio Syndrome over 10 years ago. He was hospitalized for pneumonia and his diagnosis was changed to Sequelae of Poliomyelitis. This not only seems to be inaccurate but I'm also wondering if it contributed to the delays in insurance reauthorizations.

**Dr. Bruno’s Response:** For post polio syndrome/the late effects of polio/post polio sequelae the ICD 10 - G14 code should be used. The CM B91 code is for ACUTE POLIO, which for us was like 70 years ago! The inappropriate use of the acute polio code instead of the "late effects of polio" code has been going on for 30+ years and I have never seen it affect treatment or reimbursement. Whichever code works for payment is the one that your docs should use.

On the topic of your SSDI

**Dr. Bruno's Original Post:** The Social Security Administration (in the US) is creating a new category -- “Medical Improvement Likely” -- that would mandate disability reviews every two years and strip benefits from those who are "likely" to improve. "Likely" to improve a determination that is unscientific and impossible to make.

Whether these changes are passed or not, it’s important for polio survivors on SSDI/SSI to keep a diary documenting progression of Post-Polio Sequelae symptoms -- especially fatigue, muscle weakness and difficulty breathing -- that make even sedentary work at a desk impossible. Your diary should be added at least once a year to the medical chart that your doctor keeps.

Also, remember that work disability must be based on the 2003 Social Security Ruling for Post-Polio Sequelae ([Federal Register: July 2, 2003 (Volume 68, Number 127)] SSR 03-1p).

The Social Security Ruling for Post-Polio Sequelae (as referred to above) along with information about applying for Social Security Disability is available under the topic of Social Security in the Articles section of the Encyclopedia of Polio and PPS on our website.
On the topic of CPAP, Bi-Pap and Volume Ventilators

**Dr. Bruno’s Original Post:** Polio survivors often ask about the differences between CPAP, Bi-Pap and Volume Ventilators. I hope this diagram and explanation help:

- **CPAP** blows air into the lungs *continuously* at one pressure;
- **Bi-Pap** blows air into the lungs in cycles (the cycles being the "Bi" part), for several seconds at a high pressure and then at a lower pressure so you can exhale;
- **Volume Ventilators** inflate the lungs with a measured amount (volume) of air, like carefully blowing up a balloon, and then decreases the volume so you can exhale.

![Diagram of Nighttime Mechanical Airflow](image)

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**On the topic of Essential Tremors**

**Question:** The neurologist diagnosed me with “essential tremors.” Don’t know why they call them “essential” because I shaking stops when I use my hands.

**Dr. Bruno’s Response:** Essential tremor is when your hand or hands shake when you’re using them to do something, like hold a cup. ET is the “opposite” of *resting tremor*, your hand(s) shaking when they’re at rest and a symptom of Parkinson’s disease.

Essential tremor is not the same as muscle "stuttering" in polio survivors. When you’re asked to push against someone’s hands during a manual muscle test, easily fatigued polio-damaged motor neurons can misfire and cause a muscle to rhythmically turn on and off. This misfiring is often confused with an essential tremor, but it’s not. Misfiring happens in the spinal cord and essential (and resting) tremor comes from the brain.

Incorrectly diagnosing essential tremor in polio survivors not only overlooks underlying muscle weakness but often leads to the prescription of a beta blocker (like propranolol) that is a cause of increased fatigue in polio survivors and should be avoided.
On the topic of Polio Survivors Having a High Threshold for Pain

**Original Post:** Can anyone in this group tell me where in Dr Bruno's book it explains why we feel pain twice as much as other people? Are there others who are always in pain?

**Dr. Bruno's Response:** Our 1984 study showed polio survivors are **twice** as sensitive to pain as non-polio survivors. You need to have a higher tolerance or you couldn't survive. *(Bruno RL, Johnson JC, Berman WS. Motor and sensory functioning with changing ambient temperature in post-polio subjects. Late Effects of Poliomyelitis. Miami: Symposia Foundation, 1985.)*

It has been known since the 1970s that we have receptors in our brains that respond to the body's own morphine-like, painkilling opiates, endorphins and enkephalins, and that these receptors increase in number to help us cope with long term, severe pain. The more opiate receptors there are in the brain, the higher the ability to withstand the pain.

The problem for polio survivors is that the poliovirus killed off the brain and spinal cord neurons that produce the body's own opiates. So polio survivors can't "medicate" themselves against pain no matter how many opiate receptors they produce. It's like having ten, one dollar bills (the endorphins and enkephalins) and 100 banks (the anti-pain opiate receptors) that want them. The ten, one dollar bills only go so far; 90 "banks" are going to go without. That's why polio survivors need more pain medication than non-polio survivors to fill the empty opiate receptors.

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**The Encyclopedia of Polio and Post-Polio Sequelae**

contains all of Dr. Richard Bruno's articles, monographs, commentaries, "Bruno Bytes" (Questions & Answer articles) and his Video Library.

The Encyclopedia of Polio and PPS is also available by a direct link from: [www.postpolioinfo.com](http://www.postpolioinfo.com)

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