



My Doctor Prescribed Steroids. Should I be Concerned ?

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Sugar, Steroids and Stress

Bill looked like a severe, but not unusual, PPS patient. He came to us complaining of muscle weakness and overwhelming fatigue. When I met him he was leaning heavily on a rolling walker and could hardly stay awake. His head resting in his hands, he couldn't remember the questions I was asking, let alone give me answers. Was this a clear case of post-polio muscle weakness and brain fatigue? Yes . . . Well, no.

We measured Bill's blood sugar—and found that it was 350! I called and spoke with his doctor, who gave him oral medication for diabetes. His sugar came down to a normal 105. As Bill's blood sugar decreased, so did his muscle weakness and fatigue. He "woke up," grew mentally sharp, and discarded the walker.

Bill's story again underscores that PPS is diagnosed by exclusion. It is crucial that all potential causes for new symptoms be ruled out before a diagnosis of PPS is made. Bill's PPS symptoms were in fact the result of his diabetes and very high blood sugar having a terrible effect on his polio virus-damaged spinal cord and brain-activating system neurons. Once he started medication and treated his diabetes, his post-polio neurons were able to "feed" on blood sugar and functioned better again.

Polio survivors should not take steroids unless they have a serious medical condition, and they should not take steroids for pain.

Serious medical conditions would include pneumonia, asthma, and rheumatoid arthritis.

Note: The preferred treatment of osteoarthritis and joint pain, for all of those with PPS, is neither a steroid nor any other medication but taking the load off overused limbs and following The Golden Rule of PPS:

***"If anything causes weakness, pain or fatigue? Don't do it."
Or Do a lot less of it.***

Blood Sugar and Emotional Stress

The likelihood of a shortage of blood sugar receptors on polio virus-damaged neurons in the brain-activating system and spinal cord may help explain the unexpected finding in our 1985 Survey that emotional stress was reported to be the second most common trigger for PPS symptoms. Cortisol, the body's internally manufactured steroid and its main anti-stress hormone, may be the missing link between emotional stress and muscle weakness, because cortisol interferes with neurons' ability to sprout, to make proteins, and to use blood sugar. Having too few blood sugar receptors on polio virus damaged neurons may conspire with cortisol to starve spinal cord motor neurons when they most need sugar—when you're under stress—and cause stress-induced muscle weakness. Polio survivors' fatigue during stress may also be caused by the combination of too much cortisol and too few blood sugar receptors.

The stressful attention tests we give to polio survivors can cause even non-disabled folk to report fatigue, decreased energy, trouble focusing attention, and drowsiness, symptoms that are found to

increase as their bodies produce more cortisol. What's more, cortisol not only prevents neurons from taking up blood sugar and inhibits the manufacture of proteins, but also directly slows the activity of reticular formation neurons. Even worse, people who are Type A release more cortisol in response to stress, and it takes longer for cortisol to return to normal levels.

Finally, a shortage of blood sugar receptors in the polio virus damaged hypothalamus may prevent it from "knowing" when sugar is low and stop it from releasing the brain activating hormone ACTH. This may explain our finding that fatigued polio survivors do not release ACTH in response to stress, and that the more fatigue polio survivors report, the less ACTH they release.

Is it any wonder that emotional stress plays havoc with polio survivors' bodies and brains?