



Dormant Poliovirus?

[A Bruno Byte](#)

From Dr. Richard L. Bruno, HD, PhD
Director, International Centre for Polio Education

Here's what I wrote in *The Polio Paradox* about the studies on this topic:

"Just over a dozen studies have looked for evidence that the poliovirus can lie dormant in the spinal cord, waiting to begin killing motor neurons once again. In those studies, researchers did spinal taps, collecting the fluid that bathes the spinal cord and the brain, on more than two hundred polio survivors who were reporting new symptoms. Antibodies to the poliovirus or actual pieces of poliovirus were found in the spinal fluid in, at most, 21 percent of polio survivors who had PPS, and in a few polio survivors without new symptoms. The poliovirus pieces were noninfective (not infectious)—they were simply chunks of poliovirus protein and could not infect, reproduce inside of, or kill motor neurons, either in the polio survivors in whom the pieces were found or in anyone else.

Do these antibodies and pieces indicate that the poliovirus does cause new symptoms in polio survivors? No. What Albert Sabin said to me on NIGHTLINE was right: PPS is not caused by "a recurrence of poliovirus activity in the spinal cord." If poliovirus were lying in wait to kill off remaining motor neurons, you would expect many more than 21 percent of polio survivors with PPS—if not all those with new symptoms—to have poliovirus antibodies plus the entire poliovirus, not just broken pieces.

Poliovirus antibodies do not indicate that there is a new infection; they may just be the immune system's response to the poliovirus pieces or possibly old antibodies.

And the pieces themselves? In 1995 virologist M. E. Leon-Monzon, who herself found antibodies or poliovirus pieces in only about 10 percent of those with PPS, concluded that pieces of poliovirus had been "harbored in some motor neurons that survived after the acute infection," and that only a small percentage of those with PPS "shed" pieces. (*Annals of the New York Academy of Sciences*, 1995; 753: 208-18.)

That's exactly what we thought back in 1985 when the first study reporting poliovirus antibodies in spinal fluid was published. We predicted that pieces of poliovirus protein would also be discovered, what we called the "Take Out the Garbage" Theory. I wrote that virus pieces would remain inside motor neurons that had recovered after poliovirus infection, neurons that are now releasing those pieces as they die and disintegrate because they can no longer take the strain of having been damaged, over-sprouted, and turning on double-sized muscle fibers for forty years. So, the presence of antibodies and poliovirus pieces is a secondary effect of new muscle weakness, not its cause".

[The Encyclopedia of Polio and Post-Polio Sequelae](#) contains *all* of Dr. Richard Bruno's articles, monographs, commentaries, videos and "Bruno Bytes"

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