



## Polio: All in the Family?

A Bruno Byte

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**Question:** My sister had paralytic polio and I had what the doctor said was the flu at the same time. Could my "flu" have been a mild case of polio?

**Answer:** If the poliovirus entered the nervous system there was no "mild case." The poliovirus killed brain stem (bulbar) neurons even if it didn't affect the spinal cord. And you had to have 60% of your spinal cord motor neurons killed to have any lasting paralysis!

Speaking of "mild case," here's another stat. We went through the Mayo Clinic's Olmsted County data base. We found data that indicates there are 150,000 Americans who had polio (usually siblings of paralytic polio survivors) who were never diagnosed, not even as having "non-paralytic" polio or the "summer gripe."

In 5 to 20 percent of households where poliovirus attacked one family member, another was also stricken. From 1909 to 1955 more than two thousand family members were surveyed in over one thousand households in which at least one person had polio. On average, if one child in a household became ill, he "shared" polio with one other sibling of similar age. (I say "he" because more boys contracted polio than did girls.) Just over half of those who became ill were paralyzed, while the others had flu-like symptoms ranging from a fever, sore throat, and nausea to a stiff neck and muscle pain. Such a "minor illness" was caused by the poliovirus but may never have been diagnosed as polio at all, or may have been called "abortive" or "non-paralytic" polio. In three-quarters of households the first case of polio was paralytic and the second "non-paralytic."

This is why we will never know how many people in North America actually had polio! The 1987 national health interview survey estimated that there were 1.63 million American polio survivors. But you would've had to know that you had polio to answer "yes" to the survey. What's more, reporting cases of polio was not required until 1955 and was only required to make sure that the vaccine was working! Nobody documented how many people had polio before the vaccine. The federal government just measuring that the vaccine was actually preventing new cases.

This is exactly what's happening in India right now. It is estimated that there are 8 million Indian polio survivors about whom nobody is caring for. But new cases of polio must be reported to make sure that India remains "polio free."

The bottom line: There's about a one-in-five chance that if you had paralytic polio, one of your brothers or sisters had "non-paralytic" polio - and may not even have known it.

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

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