

## Death of a Giant

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Fourteen years ago my son, wife and I sat across from a neurologist who told us that our son had multiple sclerosis. He then went on to say that the medical community had no idea what caused MS and that there were no treatments for it. However, he did tell us that our son should not buy the cement blocks just yet and that he might be one of the lucky ones who escape major disability. This “diagnose and adios” approach to MS by neurologists was standard before the current MS drugs became available.

Needless to say we were all quite shattered by this experience and it was a long, depressing ride home. A few days later one of my son’s former teachers who had heard about his diagnosis brought over a book she had gotten from the library. The book was “The Multiple Sclerosis Diet Book” by Roy Swank and Barbara Dugan. It was just what we needed because it brought much needed hope that MS could be countered and even brought under control through dietary means.

For me, the best part of the book was that it contained a very well reasoned hypothesis for the cause of MS – that fat particles in the blood caused micro-embolisms in the capillaries of the brain. These emboli in turn caused ruptures and subsequent damage to the myelin and nerve conduction in the central nervous system. To support this hypothesis, Dr Swank presented some solid epidemiological data that populations with a low saturated fat diet had much lower rates of MS than those with high saturated fat intake.

Notably, Dr Swank had done his initial research on the cause of MS from 1948 to 1950, almost 50 years before we were sitting in that neurologist’s office. In 1948, he was hired by the Montreal Neurological Institute to research MS and treat MS patients. At that time he knew little about MS but soon had read everything about it and formulated the concept that it was possibly caused by failures in the vascular system in the central nervous system.

He also noted that it was common only in industrialized countries which had a high saturated fat consumption. Like any good scientist, he then set out to test his hypothesis by going to Norway to compare the rates of MS between the

inland farming communities which had a high saturated fat diet and the coastal fishing communities which had a low saturated fat intake. By 1950 he had the data he needed and they revealed that MS was nine times more common in the farming communities.

The Norwegian data convinced Dr Swank he was right and that MS was caused by a high fat diet that led to capillary failure. Now that he had established the cause, he then devised a dietary therapy to counter the cause – the Swank Low Saturated Fat Diet for MS. Dr Swank recommended that a maximum of 10 to 15 grams of saturated fat be consumed daily. He also emphasized the need for 20 to 40 grams of unsaturated fat (omega 3 and omega 6 fats) as well as seafood and lots of vegetables, fruits and grains.

Between 1950 and 1955 Dr Swank convinced 150 MS patients to follow his low saturated fat dietary protocol and he followed these patients for over 50 years. He found that most of those who stuck to his dietary recommendations did very well and had minimal disability even some 40 years after diagnosis. Furthermore he was able to document that those who did not follow his recommendations ended up with much more disability and had a much higher death rate. These data are summarized in a wonderful chart (Figure 10) in his book.

I was so impressed with these encouraging data that I put an enlarged copy of the chart on our refrigerator where it remains to this day. Of course, we immediately instituted the Swank diet for us all and for the first time we felt somewhat hopeful that MS could be beaten. Swank's research also put me on the path to examine the relationships between MS and nutrition and everything I have found supports the value of decreased saturated fat and increased omega 3 essential fatty acid for MS.

Not surprisingly, our greatly improved understanding of MS gained from research over the last 50 years has led to the recognition that other nutritional factors such as vitamin D deficiency and milk proteins also play a role in MS onset and progression. However, I would emphasize that such insights simply build on the solid foundation of the major role of nutrition in MS that Dr Swank established almost 60 years ago.

After I finished his book, Dr Swank immediately became one of my heroes and I regard him as the most progressive and innovative MS neurologist in

history. I would bet that his advice has helped more people with MS than the advice offered by all other neurologists added together.

Given all of the above, I felt great sadness and a sense of profound loss when I recently learned that Dr Swank had died last November. The MS community lost their best friend with his passing.

I was not surprised that Dr Swank was 99 years old when he died and that he was working almost right up to time of his death. What better testament to the effectiveness of his dietary protocol for great health in general and for MS in specific.

I also learned that he had made a number of other major contributions outside of the field of MS. For starters he published over 170 papers in scientific journals between 1934 and 2003. Not many scientists can claim 70 years of publishing research.

His varied research included studies on a stain for myelin undergoing degeneration (the Swank-Davenport stain), thiamine deficiency, posttraumatic stress disorder (based on his World War II experiences) and the prevention of microemboli following cardiac bypass surgery. As part of this research, he invented the Swank Filter that removed cellular aggregates from blood and this device has helped thousands of patients undergoing heart surgery.

In summary, Dr Swank was an amazing research scientist as well as a caring, compassionate clinician. His contributions to understanding MS and how to keep the disease process well controlled were pioneering and innovative as well as life saving for countless MS patients. We may have lost a giant but he will not be forgotten. I certainly think of his greatness and my family's debt to him every time I open my refrigerator.