

Roy Swank discovered a dietary connection with multiple sclerosis in the late 1940s following studies in Norway. He instigated a study that followed a group of multiple sclerosis patients for 34 years. He wrote a book, *The Multiple Sclerosis Diet Book: A Low-Fat Diet for the Treatment of M.S.*[1]

No other treatment plan has come close to achieving the results that Swank achieved.

Roy Swank was born in 1909 in Washington, USA. He obtained a Bachelor of Science from University of Washington in 1930 followed by a medical degree in 1935 as well as PhD in anatomy. He worked at Montreal Neurological Institute which resulted in trips to Norway.

In 1954, he returned to his native state, where he worked, for the rest of his long life, as the head of the Division of Neurology at Oregon Health & Sciences University.[2]

This is how Swank described the development of MS in a patient.

These people are all energetic before they get the disease—they are driven people, always wanting to be busy. Once they get the disease they can't be that active. So fatigue becomes a very important symptom. Then they begin to have neurologic symptoms, with repeated exacerbations, until they become quite disabled. They may have double vision or blindness at one time or another. They may lose control of their bladder, arm or leg. There is usually a partial recovery from these attacks, but they reoccur and become more severe. Soon patients have difficulty walking, they lose their balance and become clumsy; they have numbness and tingling, and sometimes burning. These things continue on and the course is steadily downhill. At about 10 to 15 years they often end up confined to a bed or wheelchair. Because of the disability and fatigue, they lead a very frustrated life. Patients go from a cane to a wheelchair to bedridden. Only about 5 to 10% of patients have a milder type of disease that does not result in this gloomy future. [3]

Swank continues, describing how he came to the conclusion that multiple sclerosis is caused by diet. Note that this was in the 1950s.

At that time doctors thought MS had something to do with geography, because as you got further away from the equator the disease became more common. Scientists thought it might be due to magnetic fields, but I reasoned it could be a matter of food. The further north you go, the less vegetarian people become, and the more carnivorous they are. Looking at the literature and going over the United Nations food intake throughout the world after WW II, it was quite obvious that multiple sclerosis and heart disease both occurred in areas where large amounts of saturated (animal) fat were consumed. It was surprising to find that those populations with a high incidence of MS were those who consumed more than 100 grams of fat a day; where the disease was uncommon they consumed less than 50 grams of fat a day. For example, there was no MS in the Orient. I soon discovered that during World War II people in Western Europe, when food was scarce, had less MS and fewer attacks if they already had the disease. People living in prison camps during the war had no MS, but when they got out and returned to meats and dairy products they starting developing MS. At one point we did a survey in Norway, which showed a high incidence of the disease in the small dairy farming areas in the mountains where the fat intake was very, very high. Along the coastal fishing villages, the saturated fat intake was very low, and they had very few cases of multiple sclerosis. When you compared the two areas there were eight times as many MS cases in those mountainous, high-saturated-fat consuming areas than along the coast where they were primarily fishermen.[4]

One McDonald's Big Mac with 2 meat patties contains 8 g of saturated fat and 52% of energy is derived from fat.[5]

Swank followed 150 patients with multiple sclerosis over a period of 34 years between the years of 1949-1984.

Minimally disabled patients who followed diet recommendations deteriorated little if at all, and only 5% failed to survive the 34 yr of the study, whereas 80% who failed to follow diet recommendations did not survive the study period. [...] In general, women tended to do better than men. [6]

Swank does note that:

But, they have to follow the diet strictly because even small amounts of fat make a big difference. In the study we published in *The Lancet* in 1990, we found that a difference of eight grams of saturated fat intake daily resulted in a threefold increased chance of dying from multiple sclerosis.[7]

As Swank explains, his findings do not generate much interest.

Most people in this country expect to be cured by a pill, and have a cure that is almost instantaneous. With the low-fat diet, the people actually have to work to get better, and have to cure themselves. And as far as the MS Society, John, they don't mention it because they didn't discover it. It wasn't their research dollars that found this treatment. So they're not going to tell anybody. I discovered it in my small office here, in the basement of the University of Oregon Medical School.[8]

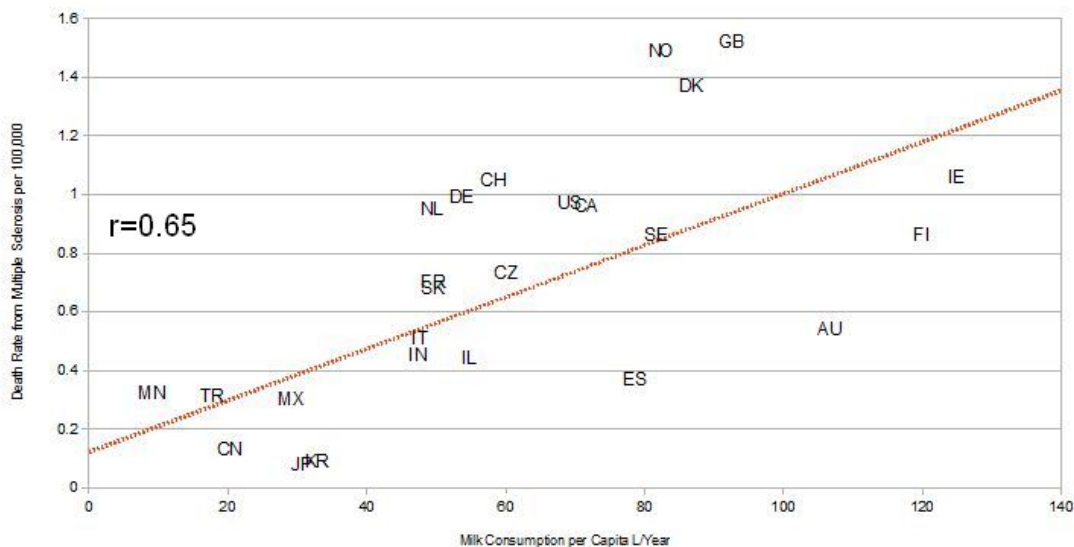
A study examined the relation between the mortality rates from multiple sclerosis for the years 1983-1989 obtained from 36 countries, and the intake of dietary fat and latitude. The more saturated fatty acids, animal fat, animal minus fish fat people consumed resulted in an increase in multiple sclerosis mortality.

The higher the ratio of polyunsaturated fatty acids to saturated fatty acids (P/S ratio) and the

ratio of unsaturated fatty acids to saturated fatty acids (U/S ratio) resulted in a decrease of multiple sclerosis mortality. [9]

A 1992 study examined multiple sclerosis and dairy consumption in 29 populations in 27 countries. The correlation between cow's milk and multiple sclerosis was 0.836 - very strong correlation. A lower correlation (0.619) was found for cream and butter and no correlation found for cheese.[10]

Below is a graph of twenty countries showing the relationship between dairy consumption and multiple sclerosis. Swank did show that saturated fats were implicated in multiple sclerosis. However, countries that have high dairy consumption tend to have high intake of fats and saturated fats.[11] [12] Note the correlation coefficient (r) of 0.61 which is a good to very good correlation.



AU=Australia; CA=Canada; CH=Switzerland; CN=China; CZ=Czech Republic; DE=Germany; DK=Denmark; ES=Spain; FI=Finland; FR=France; GB=United Kingdom; IE=Ireland; IL=Israel; IN=India; IT=Italy; JP=Japan; KR=Korea, South; MN=Mongolia; MX=Mexico; NL=Netherlands; NO=Norway; SE=Sweden; SK=Slovakia; TR=Turkey; US=United States

Ancel Keys and his colleagues found similar results for heart disease in the *Seven Countries Study*. In 1973, Finland had a highest country death rate for men from cardiac heart disease and North Karelia had the highest rate in Finland. North Karelia is an inland farming community on the border with Russia. There was a significant difference in heart disease mortality rates in North Karelia in the east and the coastal fishing regions on the west coast.[13]

Footnotes

1. Swank, R. L. & Dugan, B. B. (1987) *The Multiple Sclerosis Diet Book: A Low-Fat Diet for the Treatment of M.S.* New York: Doubleday.
2. Swank, R. L. (2008) *Dr. Roy Laver Swank 1909-2008*.
3. McDougall, J. (1998) McDougall Interview with Dr. Roy Swank, MD | Dr. McDougall's Health & Medical Center [online]. Available from: www.drmcDougall.com/health/education/health-science/featured-articles/articles/mcdougall-interview-with-dr-roy-swank-md/ (Accessed 24 July 2017).
4. McDougall, J. (1998) McDougall Interview with Dr. Roy Swank, MD | Dr. McDougall's Health & Medical Center [online]. Available from: www.drmcDougall.com/health/education/health-science/featured-articles/articles/mcdougall-interview-with-dr-roy-swank-md/ (Accessed 24 July 2017).
5. U.S. Department of Agriculture (2018) *USDA ERS - Food Consumption and Nutrient Intakes* [online]. Available from: <http://www.ers.usda.gov/Data/FoodConsumption>. McDonald's Big Mac Item Number 21237
6. Swank, R. (1991) Multiple sclerosis: fat-oil relationship. *Nutrition* (Burbank, Los Angeles County, Calif.). 7 (5), 368-376.
7. Swank, R. L. & Duggan, B. B. (1990) Effect of low saturated fat diet in early and late cases of multiple sclerosis. *The Lancet*. 336 (8706), 37-39.
8. McDougall, J. (1998) McDougall Interview with Dr. Roy Swank, MD | Dr. McDougall's Health & Medical Center [online]. Available from: www.drmcDougall.com/health/education/health-science/featured-articles/articles/mcdougall-interview-with-dr-roy-swank-md/ (Accessed 24 July 2017).
9. Esparza, M. et al. (1995) Nutrition, latitude, and multiple sclerosis mortality: an ecologic study. *American Journal of Epidemiology*. 142 (7), 733.
10. Malosse, D. et al. (1992) Correlation between milk and dairy product consumption and

multiple sclerosis prevalence: a worldwide study. *Neuroepidemiology*. 11 (4-6), 304-312.

11. Canadian Dairy Information Center (2015) Per Capita Global Consumption of Fluid Milk – Canadian Dairy Information Centre (CDIC) [online]. Available from: www.dairyinfo.gc.ca (Accessed 20 June 2018).
12. World Life Expectancy (n.d.) World Life Expectancy – Statistics Available from: www.worldlifeexpectancy.com/.
13. Keys, A. et al. (1980) *Seven Countries: A Multivariate Analysis of Death and Coronary Heart Disease*. Cambridge, Massachusetts and London, England: Harvard University Press.