

# Alzheimer's Disease: An Unusual Story of Identical Twins

Ed Hagberg, B.Ed., P.G.D. (Nutr.)<sup>1</sup>

## Editor's Note

*I've known the author for over 25 years, since he became interested in the relationship between nutrition and education. This account of identical twins with only one developing Alzheimer's disease is unusual because it is probably the only identical twin pair in the world where one of the members was given the benefit of orthomolecular treatment. Identical twins are relatively rare, orthomolecular therapy is unfortunately altogether too rare and when these two rare phenomena are put together with this kind of therapeutic response one must sit up and take notice. This is the first step in the long march to develop a preventive program for Alzheimer's disease. It is in fact a very long step, for this kind of therapeutic study on people with the same genetic structure is much more valuable than running many paired studies with unrelated people. It is not proof, it does not establish that there is indeed a relationship but it suggests that such a relationship may exist. It coincides with my own observation that elderly people who follow a similar program age less quickly and more gracefully than those who do not follow such a program. I really hope that investigators with access to similar patients will follow these important leads.*

*Several years ago two identical twin women, both over age 80, were referred to me for evaluation and treatment. They both had Alzheimer's disease. I was surprised how similar they were in appearance. I had difficulty telling one from the other by their appearance. I started them both on a nutrition enriched program. One twin followed the program, the other did not. The one who did began slowly to improve. This was the situation until they were both admitted to a local nursing home. The home refused to bring these patients to see me and I lost track of them.*

—Abram Hoffer, M.D., Ph.D.

## Introduction

After reading *Smart Nutrients*, (a book co-authored by A. Hoffer), I was impelled to write to him and relate a story to him. In my letter, I briefly described the story of my mother-in-law, V, and her identical twin sister M. I felt that V had benefited greatly from a supplement program on which I had put her following her twin's diagnosis with Alzheimer's. V is an alert lady of 88 years, M, her identical twin, died at the age of 70 from the affects of Alzheimer's disease. To me, this was unusual.

Dr. Hoffer agreed and indicated that my conclusion was an important one. He went on to say that one pair of identical twins, in a study, is equivalent to running a controlled study with 40 people on each side. Considering the genetic predisposition to Alzheimer's, my story of the twins seems interesting.

## Background

Dr. Frank MacInnes, in an article in the *Western Producer* of January 4, 1996, relates information on Alzheimer's from the point of view of a test for the disease. His article is entitled "Taking the Alzheimer's Test." I quote from that article.

"In June 1993, Dr. Allen Roses, leading researcher at Duke University Medical Center in Durham North Carolina, announced his laboratory had located the approximate site of a suspect gene in families with late onset Alzheimer's disease.

They identified this gene as being in the same region as a gene (or genes) already known for the production of a protein called Apo E, whose sole job, it was thought, was to shuttle cholesterol in and out of body cells.

But, Roses' research revealed that Apo E also transported amyloid to the brain where in time it accumulates, clogging arteries and causing brain cell destruction.

1. 533 East Place, Saskatoon, SK S7J 2Y9

Large deposits of this sticky, glue-like protein have been consistently found in the brains of Alzheimer's patients and is the main ingredient of the well known brain "plaques", one of the hallmarks of Alzheimer's disease. The genes involved in Apo E production come in three varieties— E2, E3 and E4. Everyone has two of the genes, one from each parent. The Roses' research team and others have found that persons with two E4 genes are eight times more at risk for developing Alzheimer's disease than those with a pair of E3 genes.

But other scientists, including Dr. Judes Poirier of McGill University, say some people get Alzheimer's without possessing an E4 gene. Poirier's research indicates (like Roses') persons found, by testing, to be carrying the E4 gene from a parent delay their chance of developing Alzheimer's for about 10 years (ie. after the age of 70). This test should be generally available to the public in a year or so."

Dr. MacInnes goes on to discuss other diseases which have genetic labels and accurate diagnostic tests. He also says this test is not foolproof and no cure is in sight for Alzheimer's. Perhaps no cure is in sight, but I believe we can prevent or delay onset.

### The Story

M and V were born on a homestead near Outlook, Saskatchewan in 1910. They were identical twins and lived in the same area until 1935 when V married and moved to the Eston area. M married the brother of V's husband, and stayed near Outlook. Both girls were breast fed and therefore probably had a good start in life from a nutritional standpoint.

The family was always rather poor but their diet seemed adequate by the standards of the times. There was always plenty of meat, potatoes and eggs. Root crops were fairly abundant but leafy vegetables were lacking as grasshoppers often consumed them. Some vegetables and fruit were home-canned for winter when fresh vegeta-

bles were not available. Saskatoon berries were abundant around Outlook and they were used in many ways. School lunches were made from home cured meat or eggs on homemade bread.

Both ladies were married at the age of 25 to two brothers. V and her husband farmed in the Eston area very successfully. V claims her diet was always good with plenty of garden produce and meat from the farm.

M's diet was more meager as she and her husband lived on poor quality rented land near Outlook. Crops and gardens were not as good as in the Eston area and there was little extra money for better nutrition. The personalities of the two women became different. V was easygoing while M was less that way. Perhaps because V was better off, M may have experienced a more stressful and frustrating lifestyle.

Twin M and her husband and three children were never very well off financially. They finally moved to the Eston area in the early 1950s where they had a garden, so they probably ate as well as many of the people in the area.

When M's husband died in 1954, she moved with her girls into Eston. They lived on the edge of town where they grew a large garden. M worked at the local hospital which provided her with an adequate income allowing her and her family to consume a good diet supplemented with the garden produce.

The three girls grew up and left home by the early 1960s. It is hard to ascertain what M's diet was like when she lived alone. She remarried with a local farmer in 1966 when she was 56. By this time she was beginning to show some signs of mental instability. She told stories of incidences which don't seem to have occurred. Perhaps these were delusions.

In a few years, she left her husband. Her children moved her to Victoria, where she was employed by the Red Cross, in some capacity.

When her sister V visited her it was obvious M was eating poorly. She often had tea and white bread toast for breakfast and then went to work. Nutritious food was absent from the fridge and cupboards. V bought groceries so M ate well for the week or two that her sister was with her. On a trip to Los Angeles from Victoria to visit her daughter, M said the plane had been hijacked. This was not true. She visited her other sister in Everett and told her that she had come in a mail truck.

Eventually the family realized that M could not live alone so she spent six months with one daughter in Saskatchewan and six months with the other daughter in the United States. During these times her diet was good but the damage had probably been done.

On a visit to our home, M came in from the travel trailer in our driveway. She left by the back door and couldn't find her way without help. By now she was very difficult to care for and was diagnosed as suffering from Alzheimer's. Her daughters placed her in the Senior Citizen's Home where she died in 1981.

When M was diagnosed with Alzheimer's I took it upon myself to start V on a program of broad spectrum multi-vitamins containing doses of the major B vitamins in the 10 mg range three times per day. Extra vitamin C and E were also added.

Twin V is now on a multi-vitamin and mineral supplement composed of thirteen natural ingredients. Approximately 40% of the supplement is composed of plant concentrates which are organically grown and specially concentrated. She also takes extra vitamins C and E.

She is now an alert 88 years old and has been using this supplement program for about ten years. She seems to have no signs of Alzheimer's. Her mental and physical condition lead me to believe that the prevention of the onset of Alzheimer's lies in appropriate supplementation with a

healthy diet.

This story is a testimonial to a supplementation program. It is likely to be dismissed by most medical scientists who do not value anecdotal evidence. My view, of course, is different. I think it is foolish to ignore this kind of evidence because it can lead to experimental inquiry.