# Role of Nutritional Supplement for Brain

The 1979-1983 New York City Diet Study: 800,000 Students at 803 Schools

In 1978, the New York Times reported that despite teachers in New York City receiving the highest salaries of teachers in the United States, the student's test scores were well below the national average at the 35th percentile. The Director of Food Services for the New York City Public Schools read Dr. Schauss' 1978 book and consulted with Dr. Schauss on the importance of nutrition on academic performance of students. In 1979, New York City's public school system had over 1.2 million students attending its schools, from kindergarten to high school. Dr. Schauss saw the poor academic performance of students in New York City as an opportunity to scientifically study the impact of improving the diet on academic performance. Dr. Schauss and a team of nutritionists and food services personnel recommended the following changes in breakfast and lunch meals given to students:

**1)** Improve the nutritional density (increase the concentration of vitamins and minerals per calorie) of the diet;

**2)** Reduce the amount of sugar (sucrose, which had no vitamins and minerals) in foods;

**3)** Eliminate preservatives (so the food was fresh); and,

**4)** Eliminate synthetic food colors and flavors (as some could upset brain function).

## Largest Gain in Academic Test Performance in American Educational History

Nearly 800,000 out of the 1.2 million students participated in the study for the next 4 years (from 1979 to 1983). Computers kept track of how every student was doing academically in 803 schools in New

York City. This was the largest study of diet in the world. By 1983, after only 4 years, the New York City School's academic test scores went from below the national average to well above the national average in all 803 schools at all grade levels. An independent research team of investigators at California State University reported that the New York City Schools experienced the largest gain in academic test performance in American educational history.

Results were confirmed by 102 other school districts who adopted the diet changes with similar results. While the New York City study was in progress, Dr. Schauss wrote his second book in 1980, Diet, Crime and Delinquency. This book reprinted many times was discussed by researchers and faculty at many colleges and universities for over 10 years, because the idea that what people ate and its effect on brain function was just an emerging science. Around that time researchers around the world were beginning to recognize that the lack of specific nutrients in the diet could impair behavior, learning, or cognitive performance.

After years of evaluating thousands of data points and quantifiable results, the New York City School System's study of diet and academic performance was published in 1986 and 1987 by the lead investigators in the International Journal of Biosocial and Medical Research as well as at an Annual Meeting of the American College of Nutrition, where the study received considerable attention because of the large number of subjects who participated in the study; over 800,000 students, at all grade levels in 803 schools.

In 1991, Dr. Schauss' fifth book, "Eating For A's", was published by America's leading publishing house (Pocket Books/Simon & Schuster). Loaded with nutritional tips and recipes for parents and children, this fact-filled book reached the attention of regional and national TV shows after which time it sold out in just a few months.

For many years, scientists believed that one could not raise intelligence beyond acquired intelligence, which is a function of

environmental variables that relate to the quality of teaching, schools, parental involvement, etc. They believed that the innate IQ one was born with, called "innate intelligence", could not increase no matter what kind of school you attended or how many special teachers or tutors one received.

Human intelligence is measured in many ways, but two primary ways have received particular research interest. All humans are born with some degree of intelligence. This intelligence can decide how well an individual may survive in this world, even possibly whether one succeeds in school. It can measure your ability to solve problems that require certain cognitive abilities, for example. This kind of intelligence is called "innate or fluid intelligence." It can be estimated by the use of specialized intelligence or IQ tests. Can a student do arithmetic, read a book, speak another language, play a musical instrument or remember historical events? All of these subjects are taught by parents, grandparents, brothers, sisters, tutors, and teachers. This knowledge is acquired because you were not born with these skills or knowledge. That is why it is called "acquired intelligence", which can also be determined by certain IQ tests with reasonable reliability. Well known and validated IQ tests can measure this combination of acquired and innate intelligence. The total number of points that represent this combined score on an IQ test is the "IQ score." It's not a perfect way to determine intelligence, but can be a useful indication of where a child, for example, might be performing on measures of intelligence compared to other children similarly tested.

A student in school who is 16 years of age, with an IQ of 100 (which is considered average based on earlier studies) is probably smart enough to graduate from high school and become skilled in certain vocations that would result in being able to secure a respectable "entry level" position in quite a number of trades, for example. Yet he or she might struggle in college if admitted as the demands on their cognitive and intellectual problem solving skills become more demanding – basically demanding higher levels of innate intelligence.

If that same student had an IQ of 115 (well above average), he or she might be smart enough to graduate from a graduate school, or maybe even earn a Master's degree or professional graduate school degree. The difference in income earning in a 35-year typical adult life-time work period could be worth millions more according to government data on life-time earnings between students who complete various levels of education.

Books

In 1999, Dr. Schauss' 10th book was published, Minerals, Trace Elements and Human Health. This book covers 27 minerals, especially many that are important for brain function. The book provides information on suggested intake levels of minerals for males and females in various age groups. Dr. Schauss also gives his keen insight on several important brain minerals to understand what they do and their effect on achievement and behavior if there is a deficiency intake in the diet leading to marginal deficiencies that can affect brain function.

"Feed My Brain - Eating to Excel", is now available through TriUnity International. It is a must read for parents interested in influencing their children to eat a balanced nutrient dense diet to support brain function and good overall physical health.