## Junk food may limit children's intelligence and learning ability

by Beth Bates on October 28, 2013 in Nutrition



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There is a clear impact of nutrition on the potential development of Alzheimer's disease and other late-life cognitive disorders. Green vegetables, berries, and other plant foods reduce risk, whereas animal products and processed foods increase risk.

However, the damaging effects of unhealthy foods on the brain occur throughout life. Research now suggests that the typical American childhood diet including burgers, pasta, pizza, chicken nuggets, French fries, processed and sweetened cold cereals, sweets and soda negatively affects school performance and learning.

Overall math performance in the U.S. lags far behind many other developed nations, and it is likely that the nutrient-poor American diet is a significant contributing factor.

We as parents are strongly committed to supporting our children's academic achievement. We want the best for our children, and we take an active interest in their schooling. We do everything we can to make sure that they will be well educated and able to compete as working adults in our increasingly technological world.

However, how many parents think about the impact of the foods they give their children on their academic performance?

## Early childhood

Parents must give their children's brains the right raw materials with which to learn – and start early. Breast milk provides a DHA-rich foundation for a healthy brain, and when solid foods are added, their nutritional quality is of paramount importance for the brain's continued development.

Several studies have now found that dietary patterns in early childhood affect IQ scores years later. In one study, greater consumption of fruits and vegetables upon introducing solid foods was associated with higher IQ and better memory skills when at four years of age.

Similarly, in another study, children who regularly ate cookies, chocolate, other sweets, soda, and chips during the first two years of life showed decreased IQ at age eight compared to children who did not eat these foods.

Nutrition during this formative period has a meaningful long-term effect, providing building blocks to construct the growing brain. The brain is highly susceptible to oxidative stress, so a healthful, antioxidant-rich diet is especially beneficial for the brain and is likely involved in this link between natural plant foods and higher IQ scores.

## Teenage years

Young children who are fed processed, nutrient-poor foods are likely to become unhealthy teenagers, and eventually unhealthy adults. Right now 23 percent of teens in the U.S. are pre-diabetic or diabetic, 22% have high or borderline-high LDL cholesterol levels, and 14 percent have hypertension or pre-hypertension.

A recent study tested cognitive abilities and performed brain MRIs on teens with and without metabolic syndrome, a combination of at least three diet-related metabolic abnormalities among a list including insulin resistance, high triglycerides and hypertension.

The teens with metabolic syndrome had lower spelling and math scores, lower IQs, and reduced attention span. Their brain MRIs showed a smaller hippocampus, especially in those with insulin resistance – extremely important since the hippocampus is a part of the brain involved in learning new information.

This means that our American obesity promoting, diabetic promoting diet actually can cause parts of the brain to shrink. The researchers concluded that insulin resistance and other components of the metabolic syndrome, as a result of a poor diet, may impair teenagers' academic performance, and maybe even their learning abilities throughout their lifetime.

The time to feed your children healthfully is now. A diet rich in greens, berries, other fruits and vegetables, beans, nuts and seeds is the only way to ensure that children get the array of phytochemicals, antioxidants, fatty acids and other micronutrients to adequately supply their growing and constantly learning brains. Junk food is not for kids.

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