



## Healthy Food for a Healthy Brain

- ♣ Many Americans eat five times the amount of sugar they should consume.
- Diets high in sugar can hinder learning and memory by impacting a brain chemical called BDNF which affects our learning and retention of material. The hippocampus, a key memory area of the brain, is also adversely impacted by becoming inflamed from excessive junk food consumption contributing to poorer learning. High saturated fat diets also can contribute to impaired learning in adolescents.
- Consuming sugar boosts serotonin, a chemical in the brain that keeps moods stable. Constantly over-activating the serotonin system depletes the chemical that can lead to depression. Sugar consumption can also slow down the production of other important brain chemicals like norepinephrine and dopamine, which can make it more difficult to think and maintain an appropriate mood.
- The standard American diet (SAD) found with processed foods, which are high in saturated fat, sugar and salt, puts people at risk for depression.
- There is growing research that a sugar heavy diet puts people at risk for Alzheimer's. Long before then, the brain can shrink from too much sugar being consumed.
- A review of 38 studies on obesity and cognitive function found that it can lead to difficulties with 'executive skills' such as planning, goal-oriented behavior, and decision making. Such skills are a major factor as to what contributes to success in teens and adults. Obese kids perform worse in math, spelling & mental flexibility than those with proper weight. Over consumption of sugar in adolescence may lead to reduced motivation in adulthood, which may show itself in various ways such as depression, or not doing well in school and work.
- ♣ It is estimated that 75% of processed foods are sugary.
- Dietary deficiency in omega 3 foods is associated with increased risk for ADHD, dyslexia, depression, bipolar disorder, schizophrenia, and dementia, along with impaired learning & memory.
- Dairy foods and gluten from bakery products are known to be inflammatory that can then impact brain health such as being factors involved with depression, anger, irritability, autism, and auto immune reactions.
- 4 Artificial sweeteners such as aspartame (Equal, Nutrasweet) may modulate dopamine & serotonin in the brain that could be contributing to depression, headaches, insomnia, and seizures.

## What to do instead?

- \$\rightarrow\$ Stop eating processed foods. What's processed? Anything that comes in a cardboard box is one way to spot them.
- Eat green veggies and seafood, which keep sugar cravings under control. Leafy vegetables like kale, spinach, broccoli and collards may be helping brain health by lowering homocysteine levels in the blood. High levels of homocysteine may trigger nerve cell death in the brain.
- Eat fermented foods (such as kefir, sauerkraut, pickles, miso, and kombucha) that take away the desire for sugary food. Plus, the fermentation process eats up sugar that is in such foods. (Just stay away from those that add sugar back in again.) Probiotic foods (containing 'good' bacteria) can help reduce anxiety levels, perception of stress, and improve mental outlook.
- Foods rich in omega 3 (oily fish like salmon, spinach, navy beans, red lentils, flax & chia seed, walnuts,) may help contribute to improvement on measures of verbal intelligence and learning.
- **Exercise** can boost brain function by elevating BDNF levels.
- People eating healthy foods such as fruits, veggies, nuts, and soy do better with thinking and memory processes than those who eat deep fried foods. Plus, there is a slower rate of decline with aging. Very little red meat is also advised.
- Berries like blueberries, strawberries, and acai are high in anti-oxidants, and may also help slow down brain aging.
- Fiber rich gluten free whole grains may lower the risk of cognitive impairment by reducing inflammation, oxidation, and other risk factors like high blood pressure that can harm the brain and heart.