Brain Injury Hope Foundation: 8/14/2020

The Brain Injury Hope Foundation does not condone or represent that the items contained herein are appropriate or accurate.  Please consult your physician for all medical advice.

Nutritional Notes--

These notes are for informational and educational purposes only and do not constitute medical advice. Please consult with your trusted health care provider for personal dietary advice tailored to your needs.

## You can’t plant a garden until you clear the weeds.

Clear the ‘weeds’ out of your diet. Sugar, high fructose corn syrup, tobacco, alcohol, plastics (BPA, phthalates, they are hormone disruptors), chemical toxins (glyphosate = Roundup weed killer. It is an enzyme disruptor, so critical hormones and essential amino acids can’t be built. Possible cause of leaky gut)

## Reduce Inflammation

Sugar, sugar, sugar. Treat sugar as a recreational drug = limit intake. Hidden in lots of prepared, processed foods. Double whammy: Injured brains crave sugar, making the brain sicker.

Food allergies? Answer: food challenge. Remove suspected food for 30 days. Re-introduce and see how you feel. Gluten, milk, eggs, etc.

Eat more colorful foods (fruits, berries, veggies) nuts and seeds.

Drink more water (make sure urine color is light straw color – dark urine is a sign of low hydration)

Breathe from the belly not the ribs = Diaphragmatic breathing increases oxygen saturation reducing inflammation.

## Is Your Gut a Garden or a Ghetto?

Cultivate friendly bacteria. Your gut is a garden of helpful, necessary bacteria that breakdown food into nutrition and energy to live. A healthy gut also makes the brain work better. A ghetto gut causes gut bloat, painful joints, wrinkled skin, and a weak, fatigued, foggy brain.

## Omega 3 vs 6 PUFA – Essential Brain Food Omega 3 (EPA & DHA)

PUFA (PolyUnsaturated Fatty Acids) has a ratio for good brain health 1:1 to 4:1 meaning you need almost equal omega 3 oil as omega 6. Typical American diet is 14:1 to as much as 30:1 omega 6 and almost no omega 3. Omega 3 makes the brain work and omega 6 causes more inflammation. Omega 3 reduces pain, depression, anxiety. DHA plays a key role in vision, neuroprotection, successful aging, memory, and other functions. Fatty acids (FA) stimulate gene expression and neuronal activity, boost formation of new synapses and nerve growth, and prevent neuroinflammation and cell death. By doing so, FA promote brain development, improve cognitive functions, serve as anti-depressants and anti-convulsants, protect against traumatic insults, and enhance repairing processes. FA are the nutrients that make neuroplasticity happen.

### Sources of Omega 3:

Fish and other seafood (especially cold-water fatty fish, such as salmon, mackerel, tuna, herring, and sardines) Krill oil supplements.

Nuts and seeds (such as flaxseed, chia seeds, and walnuts)

Plant oils (such as flaxseed oil, olive oil, avocados, soybean oil, and canola oil)

It is my observation, not a certainty, that food substitutes that say ‘Low’ or ‘No’ fat have more sugar and omega 6 content and are not good nutritional sources for people who want to protect their brains.

## Macronutrition: Proteins, Fats, and Carbohydrates

No one diet is good for everyone.

Mediterranean Diet: The Mediterranean diet is a diet inspired by the eating habits of Italy and Greece in the 1960s. The principal aspects of this diet include proportionally high consumption of olive oil, legumes, unrefined cereals, fruits, and vegetables, moderate to high consumption of fish, moderate consumption of dairy products, moderate wine consumption, and low consumption of non-fish meat products.

DASH diet: The DASH diet (Dietary Approaches to Stop Hypertension) is rich in fruits, vegetables, whole grains, and low-fat dairy foods. It includes meat, fish, poultry, nuts, and beans, and is limited in sugar-sweetened foods and beverages, red meat, and added fats.

MIND diet: The Mediterranean-DASH Intervention for Neurodegenerative Delay diet, or more commonly, the MIND diet, combines the portions of the DASH diet and the Mediterranean diet. Both the DASH diet and the Mediterranean diet have been shown to improve cognition; however, neither were developed to slow neurodegeneration. The MIND diet emphasizes the intake of fresh fruit, vegetables, and legumes. The MIND diet also includes recommendations for specific foods, like leafy greens and berries, that have been scientifically shown to slow cognitive decline.

Use broad strokes on dietary advice and fine tune it for you. But one Rule of Thumb: sugar makes you fat; healthy fatty acids do not make you fat – they make you smart. Sugar hinders brain function (after the first buzz). Sugar increases inflammation, pain and decreases overall body vitality. So, reduce processed carbohydrates, sugar in all forms. You don’t need to eat the same amount of healthy fatty acids to feel full. Also, essential fatty acids reduce food cravings.

## Micronutrition Brain Food: Vitamins, Minerals, Antioxidants

Folate: Folate supplementation improves cognitive function. Folate enhances the plasma concentrations of PUFAs. Study “results suggest that a combination of EPA, DHA, AA (fatty acids) and Folate could be of significant benefit in dementia, depression, and Alzheimer’s disease and improve cognitive function”. Folate is essential for the brain’s development, maturation, and ongoing renewal through old age. It also is crucial for the brain’s “plasticity”. Folate is a key nutrient for the brain to recover from injury. The higher an individual’s folate levels, the lower their chance for mood or cognitive difficulties.

Sources of Folate:

Folate is naturally present in a wide variety of foods, including vegetables (especially dark green leafy vegetables), fruits and fruit juices, nuts, beans, peas, seafood, eggs, dairy products, meat, poultry, and grains.

PS PhosphatidylSerine, (fos-fa-tie-dil-ser-een) is the most proven brain enhancing nutrients based on clinical trials. PS is in the phospholipid nutrient class and is very safe to take long-term besides being highly effective. It is a dietary supplement for memory, learning and the other higher brain functions (collectively known as cognition). PS helps the function of neurotransmitters, acetylcholine, serotonin, dopamine, epinephrine, norepinephrine, and GABA.

### Sources of PS:

Found in lecithin, eggs, white beans, meat and liver.

GPC GlyceroPhosphoCholine, (gli-sero-fos-fo-ko-lean) GPC is, like PS, a phospholipid nutrient essential to brain cell structure and function. GPC improves memory and cognition. GPC makes choline, acetylcholine, and phosphatidylcholine. GPC consistently improved measures of memory, attention, and mood. In some of the trials GPC also improved mental fatigue, disorientation, irritability, emotional swings, and indifference to surroundings.

### Sources of GPC:

include beef liver, eggs, fish, nuts, cauliflower and broccoli.

SAMe (S-Adenosyl Methionine)

SAMe strongly promotes healthy mood. SAMe also strongly supports the brain’s systems for antioxidant defense, detoxification, repair, and renewal.

High methionine foods include: turkey, beef, fish, pork, tofu, milk, cheese, nuts, beans, and whole grains like quinoa.

## Everyone knows Vitamins A, B’s, C, D, E, so take them.

## Minerals for the Brain:

CALCIUM: the number one essential mineral for healthy brain functioning. It plays a central role as a nerve cell messenger. It also regulates neurotransmission and controls nerve excitability. Low levels of this essential mineral are usually rare as the body has a large reservoir of this mineral in the bones. However, some drugs can deplete the levels of this mineral which can lead to various health problems. Foods high in calcium are cheese, yogurt, milk, sardines, dark leafy greens like spinach, kale, turnips, and collard greens.

MAGNESIUM: converts many B vitamins into their active form. Taking a vitamin supplement on its own would be futile without magnesium and other minerals. One study found that administration of magnesium supplements to aged rats improved working and long-term memory. The magnesium in cell membranes is also important for the transmission of impulses. Magnesium and calcium both need to be at ideal amounts in the body to prevent excitability of the nervous system. A deficiency of either one can lead to neurological problems. Foods high in magnesium are green leafy vegetables, such as spinach, legumes, nuts, seeds, and whole grains.

ZINC: found in high amounts in certain so-called zinc-containing neurons which are found exclusively in the forebrain. Scientists don’t know what role zinc plays in the maintenance of brain health, but its deficiency is associated with different neurological and psychological impairments. For instance, alterations in zinc balance were found in Parkinson’s disease and Alzheimer sufferers. Foods high in zinc are pumpkin seeds, beef, and shrimp.

## Antioxidants Polyphenols Flavonoids Great for Brains

So good for you. The many benefits are too numerous to list here. Just know to add colorful fruits vegetables and berries to your brain diet. Here’s a list of great sources:

Broccoli

Cauliflower purple

Medjool Dates

Red leaf lettuce

Red Cabbage

Figs

Cherries

Strawberries

Red Delicious apple

Pomegranates

Blueberries

Blackberries

Plums

Artichokes

Black Raspberries

Aronia berries

For minimum dietary intake of beneficial food, it is recommended at least two fruits and three vegetables per day is a desirable intake. Since only 9% of Americans, and fewer in most other countries, are eating five fruits and vegetables per day, there is a great opportunity to improve health by increasing consumption.

Such foods as Alaskan sockeye salmon, free-range organic chicken, grass-fed meats, sardines packed in water, organically grown blueberries and other berries, pure cocoa powder, green tea and extra virgin olive oil are especially good “brain foods” and are just as good for the entire body.

So, eat for your brain and not for your tongue. Those sugar and junk food cravings will gradually disappear, and you will feel better and live a better life, with a better functioning brain.

And please remember, the statements on this blog post are not intended to diagnose, treat, cure or prevent any disease. The author does not in any way guarantee or warrant the accuracy, completeness, or usefulness of any message and will not be held responsible for the content of any message. Always consult your personal physician for specific medical advice.

All the Best for you and your brain,

Richard Garde ツ