CAROLINA ARAMBURO

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CarolinaAramburoAndFriends' TOPIC OF THE WEEK

Hello Health, Fun and Well-Being Partners!

In this 213th Newsletter, I want to give us a chance to consider the impact that **neurological disorders and diseases** can have on people's physical, mental, emotional and spiritual well-being. In order to put the rest of the **newsletter in context:** This conversation makes more sense if you've watched my **1st Health Proposal** and my **2nd Health Proposal**. So if you haven't, please pause, go back and watch them. This week we have also included articles on neurology and neurological disorders that you can read in full **HERE**.

We are going to go **beyond the obvious** and explore the topic of neurological disorders and diseases including how to prevent and reverse those conditions, so YOU can if you wish, introduce the GIFT of neurological wellness into your life to achieve and maintain **optimal** physical well-being, emotional balance, mental and spiritual clarity and vibrant energy.

RADICAL Neurological WELLNESS is crucial to your UTMOST Wellness!

Neurology is the study of the **nervous system** of the human body. The science covers everything about the brain, spinal cord, nerves and nerve muscles including their shape, form, structure, function, as well as the causes, **manifestations** and consequences of diseases that affect it.

The brain is composed of one hundred billion neurons. These neurons are supported by approximately **one trillion** supporting cells called *glial cells.* The brain comprises approximately 2% of total body weight, while burning approximately **20-30%** of all the calories used by the body.

Because the nervous system controls **behavior and sensation**, neurology necessarily involves other fields of medicine like psychiatry. Conditions such as depression, dementia, mood disorders displayed by **Alzheimer's** patients, bipolar disorder and schizophrenia are both psychiatric and neurological concerns.

A neurological **disorder** may be caused by an infection, lack of blood supply, inflammation, or nutritional deficiencies. It can also be cancer-related or **degenerative**. At the core of almost all neurological damage and disease is a mitochondrial (a specialized part of the cell) energy failure caused by free radical damage. This single cause leads to many neurological **dysfunctions**. Neurologists treat over 600 disorders and diseases of the brain, spinal cord, and nerves, which include the following:

- Muscle disorders and pain
- Headache and facial pain
- Epilepsy and dizzy turns
- Neuritis
- Brain and spinal cord tumours
- Multiple sclerosis
- Parkinson's disease
- Stroke
- Sleep disorders
- Muscular disease
- Dementia
- Amnesia
- Meningitis
- Panic attacks
- Carpal tunnel syndrome
- Migraine
- ADD
- Guillain-Barre Syndrome
- Autism

Here are some known causes of neurological **disorders and diseases**:

- **Physical trauma**, as in a fall, automobile accident, sports injury, or assault.
- **Emotional trauma**, as in abuse or posttraumatic stress disorder.
- Drugs
- Alcohol
- Chronic **unrelenting stress**, which may be emotional, physical, or infectious.
- **Environmental toxins**, including insecticides, organochlorines, organophosphates, or solvents.
- **Toxic metals**, especially mercury, lead, and aluminum
  - **Mercury** is the root cause of the majority of neurological afflictions, including autism, Parkinson's disease, ALS, and multiple sclerosis. A film clip from the International Academy of Oral Medicine and Toxicology shows the mercury release from set dental amalgam fillings. Especially fascinating is the increase in vapor volume demonstrated with contact to the teeth (as in chewing food or gum), dental work and drilling.
  - **Lead** exposure in children has been shown to affect their IQ and cause learning disabilities.
  - **Aluminum** is

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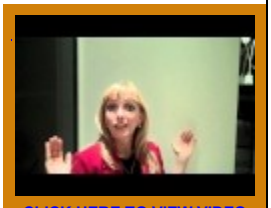

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strongly associated with Alzheimer's disease.

- **Oxygen deprivation**, as in stroke, or cerebral palsy at birth
- **Genetic predisposition** may make certain individuals more likely to be affected, but they do require an environmental trigger in order to manifest the susceptibility.
- **Nutrient deficiencies**

According to the Hippocrates Holistic Institute, and verified by many of the other **top holistic clinics** and researchers in the world, the physiology of improper brain chemistry have been categorized into two distinct areas: the genetic and disease theories.

Genetic theory specifies **three major factors** in brain health and/or degeneration:

- Extensive scientific research and studies reveal that premature aging may be in our **DNA**. Human chromosomes contain inactive, repetitive DNA sequences called telomeres. These **telomeres** shorten with each cellular division. When they become too short, they initiate an end to a cell's division, causing the cell to eventually die.
- Various **key genes** on our chromosomes regulate activity or inactivity as we age, which in turn initiates cellular declination and eventual death.
- Mammals tend to have their outside life span determined by the **rule of six**. In most mammals, if you multiply the time it takes for the mammal to reach neurological maturity by six, you reveal the approximate life span of the **species**. In humans, for example, it takes about 20 years for the brain to reach maturity; the maximum appears to be about 120 years.

Disease theory outlines ten reasons for brain decline:

- First, we **degrade DNA** and initiate cell death with free radicals - that we cause - from poor food choices, environmental toxins, and ingested and absorbed heavy metals. The more **free radicals** we create through unhealthy living, the greater degradation of the chromosomes that cause the brain and all other organs to falter.
- **Low blood pressure** is clearly linked to brain degeneration. The less circulatory activity we have reaching this essential organ, the higher the likelihood of anatomical degradation.
- **Glucose** is one of the three essential fuels for all cells, including neurons in the brain. The other two being essential fatty acids and oxygen. When we lack glucose (low blood sugar), lack of this essential fuel precipitates cell death.
- Although **low density lipids** (LDL) - known as the bad cholesterol - can be a major culprit in creating poor health when it is chronically too low, it does not allow for the essential fatty acids to be readily available food for brain cells. There is a subtle yet fundamental **coordination** between the so-called bad cholesterol and good fats, which illustrates that balancing them is mandatory in the quest to maintain healthy brain function.
- Being **underweight** may appear to be more attractive than being overweight, but not when it comes to the function of the brain. After decades of evidential science, the ratio of those with dementia and other brain-related problems are **markedly** higher for the skinny than they are for those fitting into a "normal" weight range.
- **Eliminating trans fats** from one's diet (i.e., processed vegetable oils) has proven to be an important way to reduce cell death in the brain. Sticky protein linked to dementia and Alzheimer's disease is indirectly caused via the consumption of trans fats.
- **Non-nutritive, high caloric diets** - that generally cause unhealthy weight gain - spark the reduction of oxygen flow throughout the body as well as to the brain. Restricting this critical element to the cells initially causes lethargy, potential confusion and ultimately the demise of brain cells.
- **Lacking essential vitamins** - such as vitamin B12, B6, E and C - is a set-up for the perfect scenario to harm brain function. These basic elements maintain general body-cell health and specifically create strong uncompromising brain cell function.
- **Inadequate physical exercise** is not considered dietary, yet is one of the most important resources that the brain needs to survive. Many studies - such as those of Canadian researcher, Dr. Laurens - has shown that consistent aerobic exercise in populations above 70 years old slash cases of dementia by 50 percent, reduce attention deficit disorder by approximately the same amount, and ultimately provide a **user-friendly** memory bank for the mature population.
- **Exercising your mind** has an extraordinary influence on memory and brain mechanics. Harvard Medical School highlighted one study that looked at centurions with the classic Alzheimer's gene that showed no sign of this malevolent disease. Each subject demonstrating exceptional brain function at 100 years old consistently

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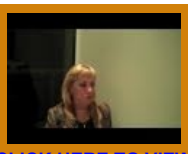

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To ENHANCE, elevate and EVOLVE your wellness I have two very important **recommendations** for you:

1) Listen to your body in a specific way*.

2) Find an extraordinary **Holistic Health/ Wellness Coach**.

*In my second health proposal, I proposed that you can improve your health by **listening** to your body and becoming aware of what it needs. I don't mean listening to your body's cravings, mostly just out of habit.

There is a **specific** way that this needs to be done and to learn 'HOW' please watch my video by clicking **HERE**.

My 2nd recommendation is that you find an **extraordinary** Holistic Health/ Wellness Coach. In our Radical Results WELLNESS COACHING DIVISION we are ready to create **Top Wellness**, with and for YOU, by designing completely **customized** nutritional, exercise plans that work for your unique body!

If you would like to **find out more** about coaching with our Health, Fitness & Quantum Healing Division click here: www.CarolinaAramburo.com.

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worked on crossword puzzles, reading, socializing and contributing. In the future, we may eventually realize that the single most important way to maintain the function of the brain is to conduct mental gymnastics on a daily basis.

On average, the human brain loses about **5 to 10 percent** of its weight in volume between the ages of 20 and 90 years old. This amounts to one to two percent loss each decade. This decline does not appear to accelerate nor advance over time; it consistently loses the same amount even as we age **chronologically**. The greatest loss of neurons and brain shrinkage occurs in the medial temporal lobes, which utilize acetylcholine as a neurotransmitter, and in the frontal lobes, which utilize dopamine as a **neurotransmitter**. With normal brain aging, the levels of both acetylcholine and dopamine both decline over time. This causes the brain to process some kinds of information slower and for certain types of memory processing to reduce.

Many studies have shown that when the brain loses volume it does not directly correlate with **cognitive function**. One interesting aspect of such findings is that people with higher education suffer more brain volume loss. In speculation, high levels of lifetime education and learning provide a reserve of brain capacity that resist cognitive decline, even though the brain is **shrinking** more in volume compared to those with lower levels of education.

Poor diet in early childhood has also been shown to affect the amount of neurons in parts of the brain. Recent research on **nutritional mechanisms** and their effect on the brain show they are involved in almost every facet of neurological functioning throughout the life cycle.

The brain consumes an immense amount of **energy** in comparison to the rest of the body. The human brain is approximately 2% of the human body mass and uses 20-25% of the total energy expenditure. Therefore, mechanisms involved in the transfer of energy from **foods to neurons** are fundamental to the control of brain function. Insufficient intakes of selected vitamins, or certain metabolic disorders, affect cognitive processes by disrupting the nutrient-dependent processes within the body that are associated with the management of energy in neurons, which can subsequently affect neurotransmission, **synaptic plasticity**, or cell survival.

In multiple studies by holistic neurologists, it has been found that there are **simple practices** that can prevent neurological diseases. According to the Hippocrates Health Institute, and many of the other **MOST Effective Holistic Treatments Centers around the world,** there are twelve major precepts to protect and preserve the brain and its function that have been studied and proven:

- Do not smoke
- Exercise regularly
- Sleep and rest well
- Do not drink alcohol
- Avoid and reduce stress
- Maintain a positive attitude
- Eat organic fruits and vegetables
- Consume less total food/calories per day
- Maintain healthy weight throughout life
- Be socially active and maintain healthy relationships
- Consistently challenge your mind and learn
- Maintain adequate levels of vitamins and minerals

There are many other causes that have been studied and shown to contribute to neurological disorders. The direct **relationships** between vaccinations and neurological diseases have been surfacing in medical journals since the advent of mass vaccination programs. **Vaccinations** are very neurotoxic and have been associated with many neurological disorders, like encephalopathies, epilepsy, convulsions, ADD, LD, autism, mental retardation, depression, anxiety, CNS disorders, paralysis, Guillain-Barre Syndrome, nerve deafness, blindness and SIDS. The neurological disorders associated with vaccinations are diverse and numerous. Vaccinations **lower IQ** as well as contribute to the overt mental disorders and neurological diseases listed here. Autism was unheard of before vaccinations, and parallel mass vaccination programs very nicely. ADD and **learning disorders** in children are now being traced to childhood vaccinations, as well as convulsions, paralysis, and epilepsy. **Brain damage** is by far the most common adverse reaction associated with vaccinations, although their actual numbers are not often reported correctly.

Dr. Samuel S. Epstein and co-author Randall Fitzgerald, in their book, Toxic Beauty said: "The air we breathe, the water we drink, the food we eat, the **prescription drugs** we take, and the cosmetics and personal care products we use have become pervasively contaminated with toxic carcinogens and we are continuously (and unknowingly) exposed to a huge amount of **'avoidable' carcinogens** that can have long-lasting neurological, reproductive, and immunological effects." [Emphasis Added]

One of every six children in America suffers from problems such as autism, aggression, dyslexia, and attention deficit hyperactivity disorder. In California, reported cases of autism rose 210 percent, from 1987-1998. In New York, the number of children with **learning disabilities** jumped 55 percent between 1983 and 1996. A growing body of evidence suggests that compounds called Neurotoxicants may be contributing significantly to the problem. **Neurotoxicants** are found in substances as common as tuna, lawn sprays, vaccines and head -lice shampoo. Fetuses and infants exposed to these chemicals during **critical windows** stages of development may be at far higher risks for childhood learning problems than once thought. A new recent study from the National Academy of Sciences suggests that a combination of neurotoxicants and genes may account for nearly 25 percent of devel-

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opmental problems. After hearings in 1985, the House Committee on Science and Technology declared that there were 850 known neurotoxicants, any of which "may result in devastating neurological or psychiatric disorders that **impair the quality** of life, cripple and potentially reduce the highest intellect to a vegetative state." [Emphasis Added]

According to Patricia Davis, Owner, Silver Needle & Thread / Tag Custom Bridal, "Our health is a big consideration. Our **skin is the largest organ** and it absorbs everything that touches it. Typical mass-produced clothes are filled with everything toxic: toxic fabric, toxic dye, toxic finishes and toxic smell. These toxins are absorbed into our body through our skin every day.

Even after washing the clothing several times, toxins remain in **massive quantities**. Toxic dyes have been studied and linked to an array of serious medical issues such as severe skin rashes (that won't heal), respiratory disease, neurological disorder and even cancer." [Emphasis Added]

Another neurological illness, Alzheimer's disease, is at epidemic proportions, with **5.4 million Americans**—including one in eight people aged 65 and over—living with the disease. In the next 20 years, it is projected that Alzheimer's will affect one in four Americans, rivaling obesity and diabetes in its scope.

There is still no known accepted cure for this **devastating disease**, and no effective treatments. Fortunately, Alzheimer's prevention is actually easier than you might think. There's exceptionally compelling research showing that your brain has great plasticity, which you control through your diet and **lifestyle choices**.

Scientists have linked many neurological disorders directly to high levels of **noxious pollutants** and heavy metals held in our organs. Hardly anyone today escapes heavy metal poisoning. It is in our air, our water, our food, our **dental implants** and medications. Pesticides are an enormous contributor to neurological disorders & diseases according to various studies:

- A recent meta-analysis published in the journal Neurology examined data from 104 studies published between 1975 and 2011, in search for a potential link between **pesticides** and Parkinson's disease.
- In 2011, a study of US farm workers from National Institutes of Health found some pesticides that are known to interfere with cell function were linked to the development of **Parkinson's disease**. Another study that was published in 2012 also reported that people with Parkinson's disease were more likely to report exposure to pesticides, compared to people without the condition.
- In this latest analysis, exposure to pesticides was linked to a **58 percent increased risk** of developing Parkinson's. Some pesticides were clearly worse than others. Paraquat (a non-selective plant killer) and two fungicides, maneb and mancozeb, were found to double your risk.

There are now thousands of products containing **MONSANTO'S Aspartame** – marketed as 'NutraSweet', 'Equal', and 'spoonful,' but the fact is: when the temperature of Aspartame exceeds 86 degrees F, the wood alcohol in aspartame converts to formaldehyde and then to formic acid, which in turn causes **metabolic acidosis** (formic acid is the poison found in the sting of fire ants). The methanol toxicity mimics multiple sclerosis and systemic lupus, and it can cause a plague of neurological diseases. It changes the **dopamine level** of the brain, it goes past the blood brain barrier and deteriorates the neurons of the brain, there are 92 documented symptoms of Aspartame poisoning from coma to death.

We now know that every activity in which you engage—be it exercise, the foods you eat, the **supplements** you take, your personal relationships, your emotional state, and your sleep patterns—all of these factors dramatically influence your genetic expression from moment to moment. Any given gene is not in static "on" or "off" position. Neither are they **deterministic**. You may be a carrier of a gene that never gets expressed, simply because you never supply the required environment for it to turn on.

"We interact with our **genome** every moment of our lives, and we can do so very, very positively," Dr. Perlmutter says. "Keeping your blood sugar low is very positive in terms of allowing the genes to express reduced **inflammation**, which increase the production of life-giving antioxidants. So that's rule number one: You can change your genetic destiny.

Rule number two: you can **change your genetic destiny** to grow new brain cells, specifically in the hippocampus... Your brain's memory center regenerates. You are constantly growing new brain cells into your 50s, 60s, 80s, and 90s – throughout your lifetime – through a process called **neurogenesis**.

That said, these two ideas come together because you can turn on your genes through **lifestyle choices** that enhance neurogenesis and that enhance regrowth of cells and expansion of your brain's memory center. Researchers proved this recently. They demonstrated that there are **factors** under our control that can make that happen."

Lifestyle choices that promote neurogenesis and **regrowth** of brain cells include the following. All of these strategies target a specific gene pathway called BDNF or **brain-derived** neurotrophic factor, which promotes brain cell growth and connectivity as demonstrated on MRI scans:

- **Exercise**. In one year-long study, individuals who engaged in exercise were actually growing and expanding the brain's memory center one to two percent, where typically that center would have continued to decline in size.
- Reducing overall **calorie** consumption
- Reducing **carbohydrate** consumption
- Increasing **healthy fat** consumption
- Increasing your **omega-3** fat intake and reducing consumption of damaged **omega-6** fats (think processed vegetable oils) in order to balance your omega-3 to omega-6 ratio. Use flaxseeds, chia seeds, hemp seeds, seaweed, beans, winter squash, dark leafy greens and berries to balance out your omega 3 intake.

HOLISTIC NUTRITION CAN PREVENT AND REVERSE NEUROLOGICAL CONDITIONS!!!

In this article we are going to identify for you, the key nutrients that have an impact on **OPTIMAL neurological wellness**.

Minerals

Deficiency or excess of essential minerals (e.g. iron, zinc, copper, and magnesium) can disrupt brain development and neurophysiology to affect **behavior**. Furthermore, minerals have been implicated in the pathophysiology of neurodegenerative diseases including Alzheimer's dementia.

Iron

Iron is essential for several critical metabolic enzymes and a deficiency of this mineral can disrupt brain development. Chronic marginal iron levels affect **dopamine** metabolism and myelin fatty acid composition and behavior. Beans and dark green leafy vegatables are high in iron, and many vegatables that are high in iron, such as broccoli and bok choy are also high in **Vitamin C** which helps the absorption of Iron.

Zinc

Zinc is essential for the structure and function of thousands of proteins critical for the function of every cell. Zinc can also serve as a **neurotransmitter** in the brain, thus a deficiency of this mineral can clearly disrupt development as well as neurophysiology. However, it is important to consider copper intake relative to zinc, because excess zinc can disrupt copper absorption. Conservative estimates suggest that **25% of the world's population** is at risk of zinc deficiency. Zinc deficiency is typically the result of inadequate dietary intake of zinc, disease states that promote zinc losses, or physiological states that require increased zinc. Physiological states that require **increased zinc** include periods of growth in infants and children as well as in mothers during pregnancy. The best, common plant sources of zinc are legumes, nuts, seeds, and oatmeal.

Cognitive and motor function may also be impaired in zinc deficient children. Zinc deficiency can interfere with many organ systems, especially when it occurs during a time of rapid growth and development when nutritional needs are high, such as during infancy. **Deprivation** of zinc during early fetal development exhibited increased emotionality, poor memory, and abnormal response to stress which interfered with performance in learning situations.

Copper

Copper is important for the function of many enzymes in the brain, in particular dopamine and **norepinephrine**. Copper deficiency and toxicity can both disrupt brain development and function. Copper deficiency can manifest in parallel with vitamin B12 and other nutritional deficiencies. Copper deficiency can cause a wide variety of neurological problems including myelopathy, **peripheral** neuropathy, and optic neuropathy. Sufferers typically have difficulty walking (gait difficulty) caused by sensory ataxia (irregular muscle coordination) due to dorsal column dysfunction or degeneration of the spinal cord (myelopathy). Another common symptom of copper deficiency is peripheral neuropathy, which is numbness or tingling that can start in the **extremities** and can sometimes progress radially inward towards the torso.

Some patients suffering from copper deficiency have shown signs of **vision and color loss** which was secondary to optic neuropathy or neurodegeneration. In addition, studies have found that people with mental illnesses, such as schizophrenia, had heightened levels of copper in their systems. Elevated free copper levels exist in Alzheimer's disease. Copper and Zinc are known to bind to amyloid beta proteins in Alzheimer's disease. This bound form is thought to mediate the production of **reactive oxygen** species in the brain. A preliminary clinical trial suggests that zinc supplementation may be able to decrease copper levels and slow degeneration in Alzheimer's disease. Copper can be found in seeds, beans, nuts, spirulina, quinoa and artichokes.

Manganese

Manganese is a component of some enzymes and stimulates the development and activity of other enzymes. Manganese superoxide dismutase (MnSOD) is the principal antioxidant in mitochondria. Several enzymes activated by manganese contribute to the metabolism of **carbohydrates**, amino acids, and cholesterol. On the other hand manganese toxicity is associated with neurological complications.

Manganism or manganese **poisoning** is a toxic condition resulting from chronic exposure to manganese. Chronic exposure to excessive Mn levels can lead to a variety of psychiatric and **motor disturbances**, termed manganism. Generally, exposure to ambient Mn air concentrations in excess of 5 mg Mn/m3 can lead to Mn-induced symptoms. In initial stages of manganism, neurological symptoms consist of **reduced response** speed, irritability, mood changes, and compulsive behaviors. Upon protracted exposure, symptoms are more prominent and resemble those of Parkinson's disease, Lou Gehrig's disease and multiple sclerosis.

Reports mention such sources as contaminated **drinking water** and fuel additive methylcyclopentadienyl manganese tricarbonyl (MMT), which on combustion becomes partially converted into manganese phosphates and sulfate that go airborne with the exhaust, and manganese ethylene-bis -dithiocarbamate (Maneb), a pesticide. People with an iron deficiency should make sure they eat vitamin C at meals so that **iron is absorbed** instead of manganese. Pineapples, beans, brown rice and nuts plus a wide variety of other plant-based food contains manganese.

Magnesium

Magnesium is necessary for the function of many metabolic enzymes and also serves as a key regulator of calcium channels involved in neurotransmission (e.g. NMDA receptor). Magnesium **supplementation** facilitates nerve regeneration after injury. Al

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HOLISTIC NUTRITION CAN PREVENT AND REVERSE NEUROLOGICAL CONDITIONS!!(Cont.)

though unpolished grains contain magnesium, phytic acid in grains can inhibit its absorption. Leafy greens are an excellent source of magnesium. Magnesium can be found in pumpkin seeds, sesame seeds, nuts, peas, avocados, quinoa, leafy green vegetables, chlorella and spirulina. It is important to remember that calcium and magnesium work together in the body too, so if you take a high dose of one it can **unbalance** your system, and cause problems associated with a deficiency of the other.

Vitamins

Deficiency or excess intake of many vitamins can affect the brain, contributing to developmental and degenerative diseases.

Vitamin A

Vitamin A is an essential nutrient which takes form in either retinol or the provitamin **beta-Carotene**. It helps regulation of cell division, cell function, genetic regulation, helps enhance the immune system, and is required for brain function, chemical balance, growth and development of the **Central Nervous System** and vision. A deficiency in Vitamin A can impact learning memory, cause hippocampus damage and affect spatial memory and eyesight (causing night blindness). The foods highest in Vitamin A are any **pigmented** fruits and vegetables; leafy green vegetables also provide beta-Carotene. Vitamin A can be found in many planet based foods such as carrots, butternut squash, sweet potatoes, spinach, kale, cantelope, broccoli and mangoes. Zinc is needed to maintain normal Vitamin A levels in blood plasma. It also helps Vitamin A become metabolized by the liver.

Thiamin (Vitamin B1)

Vitamin B1, also known as thiamine, is a coenzyme essential for the metabolism of carbohydrates. This vitamin is important for the **facilitation of glucose** use, thus ensuring the production of energy for the brain, and normal functioning of the nervous system, muscles, and heart.

Thiamine is found in all **living tissues**, and is uniformly distributed throughout mammalian nervous tissue, including the brain and spinal cord. Metabolism and coenzyme function of the vitamin suggest a distinctive function for thiamin within the nervous system.

The brain **retains its thiamine content** in the face of a vitamin-deficient diet with great tenacity, and it is the last of all nervous system tissues to become depleted.

The body has only small stores of B_1; accordingly, there is risk of deficiency if the level of intake is reduced even for just a few weeks. Thiamin deficiency during critical periods of early development can disrupts neurogenesis. Severe **thiamin deficiency** can also result in acute neurodegeration, leading to peripheral neuropathy and memory loss. Clinical signs of B_1 deficiency include mental changes such as apathy, decrease in short-term memory, confusion, and irritability. In addition, moderate deficiency of thiamine may increase rates of **depression**, dementia, falls, and fractures in old age. Later in life, lack of thiamin causes the disease known as beriberi.

Foods providing **rich sources** of thiamine include unrefined grain products, ready-to-eat cereals, , legumes, fruits. Sources of B1 include whole grains, enriched breads and flours, dried beans, nuts and seeds, and peas.

Niacin (Vitamin B3)

Vitamin B3, also known as niacin, includes both nicotinamide as well as nicotinic acid, both of which function in many **biological oxidization** and reduction reactions within the body. These functions include the biochemical degradation of carbohydrates, fats and proteins. Niacin is also involved in the synthesis of fatty acids and cholesterol, which are known mediators of brain **biochemistry** and cognitive functions.

Sufficient niacin intake is either obtained from diet or **synthesized** from the amino acid tryptophan.

Severe niacin deficiency typically manifests itself as the disease pellagra. **Neuropsychiatric** manifestations of pellagra include headache, irritability, poor concentration, anxiety, hallucinations, stupor, apathy, psychomotor unrest, photophobia, tremor, ataxia, spastic paresis, fatigue, and depression. Symptoms of fatigue and insomnia may progress to encephalophathy characterized by **confusion, memory loss, and psychosis**.

Those afflicted with pellagra may undergo **pathological** alterations in the nervous system. Findings may include demylenation and degeneration of various affected parts of the brain, spinal cord, and peripheral nerves. B3 can be found in avocados, beans, and nuts.

The best method of **prevention** is to eat food rich in B_3. Generally, this involves the intake of a protein-rich diet. Foods that contain high concentrations of niacin in the free form include beans as well as enriched grain and cereal products.

Folate (Vitamin B9)

Folic acid is the most oxidized and stable form of folate, and can also be referred to as vitamin B_9. It rarely occurs naturally in foods, but it is the form used in vitamin supplements as well as fortified **food products**.

Folate **coenzymes** are involved in numerous conversion processes within the body, including DNA synthesis and amino acid interconversions. Folate and vitamin B_{12} play a **vital role** in the synthesis of S-adenosylmethionine, which is of key importance in the maintenance and repair of all cells, including neurons. In addition, folate has been linked to the maintenance of **chemical reactions** that lead to the synthesis of serotonin and catecholamine neurotransmitters.

Folate has a major, but indirect role in activities which help to direct gene expression and **cell proliferation**. These activities occur at a greatly increased rate during pregnancy, and depend on adequate levels of folate within blood plasma.

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HOLISTIC NUTRITION CAN PREVENT AND REVERSE NEUROLOGICAL CONDITIONS!!(Cont.)

Folate **deficiency** can disrupt neuralation and neurogenesis. Maternal folic acid intake around the time of conception prevents neural defects. Furthermore, folic acid intake was recently associated with **incidences** of autism. For example, elevated levels of folic acid can interact with vitamin B_{12} deficiency to cause neurodegeration. Furthermore, folic acid and iron can interact to exacerbate malaria.

The relationship between folate and B_{12} is so **interdependent** that deficiency in either vitamin can result in megaloblastic anemia, characterized by organic mental change.

The process of neural tube transformation into **structures** that will eventually develop into the central nervous system is known as neurulation, the success of which is dependent on the presence of folate within the body. Functional problems in the absorption and **utilization** of vitamins may also play a role in folate deficiencies within the elderly. Plant based sources of B_9 include asparagus, broccoli, beets, beans and lentils, green leafy vegetables and oranges.

Deficiency in folate can cause an elevation of homocysteine within the blood, which has been associated with increased risk of **vascular events**, as well as dementia.

Differences lie in the presentation of megaloblastic **anemia** induced by either folate or B_{12} deficiency. Megaloblastic anemia related to deficiency in B_{12} generally results in peripheral neuropathy, whereas folate-related anemia often results in affective, or **mood disorders**. In addition, folate concentrations within blood plasma have been found to be lower in patients with both unipolar and bipolar depressive disorders when compared with control groups.

The role of folic acid during pregnancy is vital to **normal development** of the nervous system in the fetus. A deficiency in folate levels of a pregnant woman could potentially result in neural tube disorder, a debilitating condition in which the tubes of the central nervous system do not fuse entirely. Intake of the vitamin has been linked to deficits in **learning and memory**, particularly within the elderly population. Elderly people deficient in folate may present with deficits in free recall and recognition, which suggests that levels of folate may be related to **efficacy of episodic memory**.

Lack of adequate folate may produce a form of dementia considered to be reversible with administration of the vitamin. There is a degree of improvement in **memory associated** with folate treatments. In addition to these results, improvements of memory, and **information-processing** speed, as well as slight improvements of sensorimotor speed have been observed, which suggests there is a link between homocysteine and cognitive performance. The incidence of Alzheimer's and other cognitive diseases has been loosely connected to deficiencies in folate. Good sources of folate include beans, asparagus, spinach, broccoli, and oranges.

Choline

Choline is an important methyl donor involved in one-carbon metabolism that also becomes incorporated into phospholipids and the neurotransmitter acetylcholine. Because of its role in **cellular synthesis**, choline is an important nutrient during the prenatal and early postnatal development of offspring, as it contributes heavily to the development of the brain, in particular **physical changes** to the hippocampus, the area of the brain responsible for memory. Furthermore, choline can reduce some of the deleterious effects of folate **deficiency** on neurogenesis.

Choline has been shown to increase the synthesis and release of acetylcholine from **neurons**, which in turn increases memory. There is further evidence to suggest that choline supplements can be used to treat people who suffer from neurological disorders as well as **memory defects**. Good sources of choline include quinoa, and broccoli.

Cobalamin (Vitamin B12)

Also known as cobalamin, B_{12} is an essential vitamin necessary for normal blood formation. It is also important for the **maintenance** of neurological function and psychiatric health. The absorption of B_{12} into the body requires adequate amounts of intrinsic factor, the glycoprotein produced in the parietal cells of the stomach lining. A functioning small intestine is also necessary for the proper **metabolism** of the vitamin, as absorption occurs within the ileum. B_{12} is produced in the digestive tracts of all animals, including humans. As such, vitamin B_{12} must be obtained through diet.

Unlike other B vitamins which are not stored in the body, B_{12} is stored in the liver. Because of this, it may take **5–10 years** before a sudden dietary B_{12} deficiency will become apparent in a previously healthy adult. B_{12} deficiency, also known as hypocobalaminemia, often results from complications involving **absorption** into the body.

Diseases that involve disorders of the small intestine, such as **celiac disease**, Crohn's disease and ileitis, may also reduce B_{12} absorption. For example, people with Celiac's disease may damage the microvilli within their small intestines through the **consumption** of gluten, thereby inhibiting absorption of B_{12} as well as other nutrients. A diet low in B_{12}, whether voluntary or not, can also cause **symptoms** of hypocobalaminemia.

An assortment of neurological effects can be observed in **75-90%** of individuals of any age with clinically observable B_{12} deficiency. Cobalamin deficiency manifestations are apparent in the abnormalities of the spinal cord, peripheral nerves, optic nerves, and cerebrum. These **abnormalities** involve a progressive degeneration of myelin, and may be expressed behaviourally through reports of sensory disturbances in the extremities, or motor disturbances, such as gait ataxia. Cognitive changes may range from loss of concentration to memory loss, **disorientation**, and dementia. Mental symptoms are extremely variable, and include mild disorders of mood, mental slowness, and memory defects. (Cont. on next page)

HOLISTIC NUTRITION CAN PREVENT AND REVERSE NEUROLOGICAL CONDITIONS!!(Cont.)

Memory defects include symptoms of confusion, severe agitation and depression, delusions and paranoid behaviour, visual and **auditory** hallucinations, urinary and fecal incontinence in the absence of overt spinal lesions, dysphasia, violent maniacal behaviour, and epilepsy. It has been suggested that mental symptoms could be related to a decrease in cerebral metabolism, as caused by the deficiency. All of these symptoms may be present with or without additional mood changes.

Mild to moderate cases of **pernicious anemia** may show symptoms of bleeding gums, headache, poor concentration, shortness of breath, and weakness. In severe cases of pernicious anemia, individuals may develop **various cognitive** problems such as dementia and memory loss.

It is not always easy to determine whether B_{12} deficiency is present, especially within older adults. Patients may exhibit **violent behavior** or more subtle personality changes. They may also present vague complaints, such as fatigue or memory loss, that may be attributed to normal aging processes. Cognitive symptoms may mimic behaviour of Alzheimer's and other **dementias** as well.

It is suggested that vegans, who consume no animal meat or by-products, supplement their diet with B_{12}. While there are foods fortified with B_{12} available, some may be **mislabeled** in an attempt to boost their nutritional claims. Products of fermentation, such as algae extracts and sea vegetables, may be labeled as sources of B_{12}, but actually contain B_{12} analogues which compete for the absorption of the **nutrient** itself.

Unfortunately, recent research has surfaced indicating that the human body does not possess the ability to absorb the B_{12} found in **plant sources**. It was also thought that carnivores and lacto-consumers received B_{12} from the animal fare they consumed. Many studies have found that meat and dairy consumers suffer the same level of B_{12} deficiency as vegetarian and vegans. For this reason, to get **adequate** amounts of the vitamin, bacterial forms of sublingual B_{12} (Cyanocobalamin) is recommended.

B12 deficiency can affect the production of the **essential** myelin sheath that insulates each neuronal cell from those surrounding it. Without this sheath, neuronal cells and the neurological system itself can literally short out, producing symptoms from numbness and tingling to a complete loss of sensation and motor function. Alzheimer's, dementia and Parkinson's are examples of what havoc the absence of this **bacterial nutrient** plays on the body.

Vitamin D

Vitamin D is an essential regulator of the vitamin D receptor that controls gene transcription during development. Vitamin D deficiency can **disrupt neurogenesis**, leading to altered dopamine signaling and increased exploratory behavior. A Finnish study found that vitamin D supplement use is associated with reduced risk of schizophrenia. Vitamin D deficiency has been proposed as an explanation for the increased incidence of **schizophrenia** among children that were conceived during winter months. Vitamin D also plays a fundamental role in brain health, immune function, and inflammation.

Vitamin D influences the expression of more than **913 genes**. Surprisingly, a vast majority of people are dramatically deficient in this critical steroid hormone, in large part because of a fear of sun exposure. If your arms and face (or the equivalent amount of skin or more) is exposed to **midday sun** (10 am to 2 pm), without sunscreen, on a day when sunburn is possible (i.e., not winter or cloudy), then you should not need any dietary vitamin D that day. There are also some foods, such as sunflower greens, wheatgrass juice, chickweed and others, which contain Vitamin D.

Lipids

Fat

Fatty acids are necessary for the synthesis of **cell membranes**, neurotransmitters and other signaling molecules. While excessive fat intake can be harmful, deficiency of essential fatty acids can disrupt neurodevelopment and synaptic plasticity. Consuming saturated fats can negatively affect your brain. Eating foods with saturated fats elevates the level of **cholesterol** and triglycerides in your body. Studies have shown that high levels of triglycerides are strongly linked with mood problems such as depression, hostility and aggression. This may occur because high **triglyceride** levels decrease the amount of oxygen that blood can carry to your brain. These are the fats found in meat and diary products.

Essential fatty acids

There are two kinds of essential fatty acids that we must consume (omega-3 and omega-6). Experts say that we need to eat a **balanced** amount of omega-3s and omega-6s. However, some data suggests that Americans consume twenty times more omega-6s than omega-3s. There is a theory that an imbalance of essential fatty acids may lead to **mental disorders** such as depression, hyperactivity and schizophrenia, but it still lacking evidence. An omega-3 deficient diet increases omega-6 levels in the brain, contributes to axiety and depression-like behaviors. Sources of omega-3 include flax seeds, chia seeds, walnuts, sea vegetables and green leafy vegetables. You can find sources of omega-6 in walnuts, hazelnuts; sunflower, safflower, corn, and sesame oils.

Cholesterol

While cholesterol is essential for membranes and steroid hormones, excess cholesterol affects blood flow, impairing cognitive function in vascular dementia. According to Dr. David Perlmutter "Cholesterol is so drastically important for health, because (1) it's the precursor for which you make vitamin D and (2) it's a **fundamental** compound of every cell in your body and made by every cell in your body. It's a brain antioxidant. It's a precursor for all the steroid sex hormones – it's fundamentally important." [Emphasis Added]

Research shows that elderly individu

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als with the lowest cholesterol levels have the highest risk for Alzheimer's. As he says, the war on cholesterol is fundamentally **inappropriate** and harmful.

- "I say to my audiences very frequently, "If **cholesterol** is so bad, what you're saying is that if you believe in evolution or if you believe in creation – either way – either nature got it wrong or God got it wrong by putting the ability to make cholesterol in every one of our cells. Why would that be a mistake?"

- It's not a mistake. We are desperate for cholesterol. It's a **fundamental** player in every cell membrane. We've been on a high-cholesterol diet for millions of years, and it has served us well. In fact, our genome has been selected based upon that diet"

Carbohydrates

Studies have shown that learning and memory improve after consuming carbohydrates. There are two kinds of carbohydrates that you can consume, **simple and complex**. Simple carbohydrates are often found in processed foods and release sugar into the bloodstream quickly after consumption. Complex carbohydrates are digested more slowly, and therefore cause sugar to be released into the bloodstream more slowly. Good sources of **complex carbohydrates** are beans, whole grains, veggies, fruits, nuts, seeds, brown rice and oatmeal. It is recommended that you consume more complex carbohydrates, because they cause the level of sugar in your **bloodstream** to be more stable, causing less stress hormones to be released. Consuming simple carbohydrates may cause the levels of sugar in your bloodstream to rise and fall which can cause mood swings.

Low Carbohydrate Ketogenic Diets

The ketone body beta-hydroxybutyrate is a **fuel source** for the brain during times of fasting when blood glucose levels fall. Although the mechanism is not understood, it is well established that eating a diet low in **carbohydrates** can be therapeutic for children with epilepsy. This is likely a result of ketone bodies providing an alternative fuel source to glucose for neuronal function. Furthermore, a ketogenic diet can be beneficial for dementia patients. Medium-chain **triglycerides** can stimulate ketone synthesis, and coconut oil is a rich source of medium chain triglycerides that several anecdotal reports suggest can improve cognitive function in Alzheimer's type dementia patients.

Protein

When protein is consumed, it is broken down into **amino acids**. These amino acids are used to produce many things like neurotransmitters, enzymes, hormones, and chromosomes. Proteins known as complete **proteins** contain all eight of the essential amino acids. Quinoa, buckwheat, hempseed, chia seeds, brown rice and beans together, Ezekiel bread, and spirulina with grains or nuts are all examples of complete proteins.

Incomplete proteins contain only some of the **eight essential amino acids** and it is recommended that you consume a combination of these proteins. Disruption of amino acid metabolism can affect brain development and neurophysiology to affect behavior.

Glutamate

Glutamate is a proteinogenic amino acid and neurotransmitter. As an amino acid, it acts as a source of fuel for various **cellular functions** and as a neurotransmitter. Glutamate is released when a nerve impulse excites a glutamate producing cell. This in turn binds to neurons with glutamate receptors, stimulating them.

Glutamate is a **nutrient** that is extremely difficult to be deficient in, as, being an amino acid, it is found in every food that contains protein such as flax seeds and many plant based foods. Additionally it is found in fermented foods. Glutamate is also absorbed **extremely efficiently** by the intestines. Glutamate, while critically important in the body, also acts as an excitotoxin in high concentrations not normally found outside of laboratory conditions, although it can occur following brain injury or spinal cord injury.

Phenylalanine

L-Phenylalanine is biologically converted through L-tyrosine and beta-phenethylamine into dopamine, norepinephrine (noradrenaline), and epinephrine (adrenaline). Phenethylamine is further **converted** into N-methylphenethylamine. Phenylalanine uses the same active transport channel as tryptophan to cross the blood–brain barrier, and, in large quantities, interferes with the production of serotonin.

Phenylketonuria

Toxic levels of phenylalanine accumulates in the brains of patients with Phenylketonuria, leading to severe brain damage and mental retardation. To prevent **brain damage**, these individuals can restrict dietary phenylalanine intake by avoiding protein and supplementing their diet with essential amino acids. Phenylketonuria can be found In apples, pineapples, beets, carrots, parsley, spinach, tomatoes, nutritional yeast.

Antioxidants

Antioxidants consist of vitamins, phytochemicals, and other nutrients that protect your body **against free radicals**. There are many kinds of antioxidants with different functions. Vitamins A, C, and E are the most well known antioxidant vitamins. Studies have shown that elderly people who consume the proper amount of vitamin A perform better on **cognitive tests** than those who consumed less. Researchers have found that vitamin A helps regenerate nerve cells. Vitamin C protects DNA and produces and protects dopamine and norepinephrine. Consumption of vitamin C has been shown to reduce the **risk of stroke**, reduce high blood pressure and increase longevity. There are many foods containing vitamin C, but the best sources of vitamin C are rose hips, guava, black currants, cranber

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HOLISTIC NUTRITION CAN PREVENT AND REVERSE NEUROLOGICAL CONDITIONS!!(Cont.)

ries, kale, parsley, peppers, Brussels sprouts, broccoli, collards, and cabbage.

Vitamin E protects **mitochondria**, strengthens cerebral capillaries and red blood cells, and helps oxygen get to the brain. Consumption of vitamin E has been shown to reduce the risk of stroke and increase longevity. The best sources of vitamin E are seeds, nuts, and soybeans. Lutein is an antioxidant that is said to reduce the risk of stroke. **Dark leafy greens** and oranges are good sources of lutein.

Proanthocyanidins are antioxidants that cross the **blood–brain barrier** and protect against different kinds of free radicals. Proanthocyanidins have been shown to improve **motor activity** and memory and improve mood. You can find proanthocyanidins in blueberries, ginkgo leaves and grapes. There are many kinds of antioxidants and more studies are being done to show their effects on the brain.

Antioxidants act as the body's natural **defense system**, helping neutralize unstable molecules called free radicals that can damage cells. They also repair the cell damage associated with neurodegenerative conditions. A study published in the American Academy of Neurology's journal Neurology in 2006, of almost **2,000 men and women** over the age of 65, found that those who ate more than two servings of vegetables each day showed 40 percent less mental decline on cognitive tests than those who reported eating little or no vegetables. And when British researchers pooled eight studies that included more than 250,000 people, they found that those who reported eating at least **five servings of fruits and vegetables** a day had a 26 percent lower risk of stroke than those who ate less than three servings daily.

Experts claim eating eight to 10 fruits and vegetables a day as part of a low-fat diet can **lower blood pressure** almost as much as most blood pressure medications. “A person who lowers their blood pressure even a few millimeters has made a real impact,” claims Dr. Gerbstadt. “The more fruits and vegetables you can eat, the better, but go with vegetables over fruit for health benefits and weight control.”

Researchers claim the most beneficial vegetables are the green leafy variety, including spinach, kale, and collard greens, most likely because they're loaded with antioxidants such as vitamins C, E, A, and **selenium**. In terms of fruits, go for color—try blueberries, blackberries, and strawberries. A study published in the May 2005 issue of the Journal of Experimental Neurology found diets enriched with spinach and blueberries lost fewer brain cells after a stroke and **recovered** significantly more than diets of those that weren't eating the spinach and blueberry-enriched diets.

Antioxidant-Rich Foods

- **Vitamin C**: citrus fruits, strawberries, green leafy vegetables, raw cabbage, green peppers, potatoes, broccoli, melon.
- **Vitamin A**: carrots, squash, sweet potatoes, tomatoes, kale, collard greens, peaches, apricots, cantaloupe.
- **Vitamin E**: nuts, seeds, wheat germ, whole grains, vegetable oil, green leafy vegetables.
- **Selenium**: garlic and grains.
- **Lycopene**: pink grapefruit, guava, watermelon, rosehips, tomatoes.
- **Polyphenols**: tea, berries, grapes, turmeric, sesame seeds, artichokes.

Two studied and proven herbs that help Alzheimers are Rosemary and Turmeric. **Turmeric** has been used medicinally for more than 5,000 years, turmeric has antioxidant, anti-inflammatory, and cholesterol-lowering properties—all three of which are thought to be involved in the onset of Alzheimer's disease. A major source of the anti-inflammatory **curcumin** (the chemical responsible for the spice's yellow color), turmeric helps combat **inflammation** deep within the brain's tissue and thwart the development of plaques in the brain, which contribute to the disease.

Rosemary contains several compounds that prevent the breakdown of acetylcholine, an important neurotransmitter in the brain necessary for memory and healthy brain function. In fact, one Alzheimer's drug, Aricept, works similarly, by interfering with acetylcholine **breakdown**.

Some of the herbs, which are often helpful in **combating** the emotional symptoms of depression, are described below. It is important to note that it is suggested for individuals going through these symptoms to use herbs under the supervision of a Naturopathic Physician or nutritionist, such as the ones at Hippocrates Health Institute or many other of the top holistic clinics in the world.

Ginkgo Biloba: The phytochemicals unique to the Ginkgo Biloba tree restore better blood flow to the brain, allowing improved flow of oxygen, and protects the cells from free radicals.

Ginseng (Panax ginseng and Panax quinquefolius): An adaptogenic herb often used to boost mood, improve memory and attention, lengthen physical and mental endurance, improve test scores, and ease anxiety.

Gotu Kola (Centella asiatica): An herb often used to improve memory, concentration, and mental performance levels.

St. John’s Wort (Hypericum perforatum): An herb often used in the treatment of mild to moderate depression. Not recommend as a first line or solo treatment for depression; may be effective for a patient with a history of positive response to low-dose SSRI medications.

Roseroot (Rhodiola rosea): An herb often used to improve mental and physical energy, cognitive functions, memory, and performance under stress. By providing extra mental energy, this herb has helped some overcome sad feelings and other symptoms of depression.

MASTERFUL BUSINESS & PERSONAL COACHING

Using various methodologies, I have been coaching both **large groups and one on one**, since 1991. This includes, but is not limited to Landmark Education's Ontological Methodologies, Silva, that of J. Rohn of Herbalife, and MY OWN.

In 1999 I began coaching people in Landmark Education inside of various leadership roles using Ontology (Landmark Education's methodology). In the years that I was leading the Landmark Forum, I coached, 3 weekends a month, different groups in rooms filled with 150+ to 1200 people, in many different cities and countries. I coached **individual people** who came to the microphone for coaching on their personal lives and professional performance. I coached and lead the group as a whole producing a common "simultaneous **UNPRECEDENTED** transformational shift", for every group no matter what their circumstances. In addition to this, I coached teams of people who worked with me in both group and individual settings. These mostly included **managers, supervisors and leaders**. This coaching/ consulting was mostly on business performance and production.

Thus, after 20 years of **outstandingly successful practice**, and after coaching hundreds of thousands of people and consistently **exceeding their expectations 94% of the time**, I have the confidence to say that I can coach anyone, in anything, and under any circumstance and have **YOUR SUCCESS in ANY ARENA** be a foregone conclusion while also having it be a deliciously fun and **FULFILLING ADVENTURE**!!

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Your OPTIMAL Emotional, Mental & Spiritual Wellness is DIRECTLY Connected to your Neurological System!!!

Neurology has an especially close relationship with **psychology** and psychiatry, as all three disciplines focus on the functions, wellness and disorders of a single organ: the brain. The main subjects of the traditional "neurological examination" may be elementary **motor and sensory** processes, but any comprehensive assessment of "brain function" must take into account cognition and behavior. Cognitive and behavioral involvement is the rule, not the exception, among patients with disorders of the **central nervous system** (CNS). The physical and psychological symptoms of disease can therefore be related in the following ways: (1) physical symptoms come to light by way of complex psychological processes; (2) psychological upset can manifest itself in **physical symptoms**; (3) physical diseases commonly cause a secondary psychological reaction; (4) one category of physical disease, affecting the brain, can give rise, more or less directly, to psychological manifestations.

Antonio R. Damasio, chair of the University of Iowa's neurology department since 1986 and his wife, neurologist Hanna Damasio are frontrunners in the study of neurology. According to Damasio, "In everyday language we often use the terms **emotions and feelings** interchangeably. This shows how closely connected emotions are with feelings. But for neuroscience, emotions are more or less the **complex reactions** the body has to certain stimuli. When we are afraid of something, our hearts begin to race, our mouths become dry, our skin turns pale and our muscles contract. This emotional reaction occurs automatically and unconsciously. Feelings occur after we become aware in our brain of such physical changes; only then do we **experience** the feeling of fear.

The brain is constantly receiving signals from the body, registering what is going on inside of us. It then processes the signals in **neural maps**, which it then compiles in the so-called somatosensory centers. Feelings occur when the maps are read and it becomes apparent that emotional changes have been recorded—as snapshots of our physical state, so to speak. Interestingly enough, not all feelings result from the body's reaction to **external stimuli**. Sometimes changes are purely simulated in the brain maps. Extreme stress or extreme fear and even physical pain can be dismissed; the brain ignores the physical signals that are transmitting the pain stimulus."

Researchers have now discovered that the brain is able to prevent emotions from interfering with **mental functioning** through a specific "executive processing" area of the cortex that can inhibit activity of the **emotion-processing** region. The findings also offer insight into how sufferers of post-traumatic stress disorder (PTSD) or depression are unable to control emotional intrusion into their thoughts, said the researchers, Amit Etkin, Joy Hirsch, and colleagues, who reported the discovery.

According to G Kohls, M.D. there are many organic, neurological causes for disorders that have been labeled by the **medical community** as "mental illness" or psychosis. Kohls published an article in 1999 where he labeled 8 medical illnesses that can present themselves as psychoses, 4 medical illnesses that can present themselves a anxiety/nervousness/mania and 7 medical illnesses that can present

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Your OPTIMAL Emotional, Mental & Spiritual Wellness is DIRECTLY Connected to your Neurological System!!! (Cont.)

themselves as **depression/sadness**.

Some of the most respected individuals in the history of psychology - William James, Gordon Allport, Erich Fromm, Viktor Frankl, Abraham Maslow and Rollo May - have made **spirituality** a major focus of their work. And Carl Jung went so far as to say that spirituality was such an essential ingredient in psychological health that he could heal only those middle-age people who embraced a spiritual perspective toward life.

How does the brain and nervous system relate to spirituality, and how does spirituality impact the brain and nervous system? It could have a lot to do with the quieting of a **small area in our brains**, many studies suggest.

The area in question — the right parietal lobe — is responsible for defining "Me," said researcher Brick Johnstone of Missouri University. It generates self-criticism, he said, and guides us through physical and **social terrains** by constantly updating our self-knowledge. People with less active Me-Definers are more likely to lead spiritual lives, reports the study in the **current issue** of the journal *Zygon*.

Most previous research on neuro-spirituality has been based on brain scans of actively practicing adherents (i.e. meditating monks, praying nuns). So Johnstone and colleague Bret Glass tested brain regions implicated in the previous **imaging studies** with exams tailored to each area's expertise. They then looked for correlations between performance of different brain regions and the subjects' self-reported spirituality.

The researchers pinpointed a less functional right **parietal lobe**, a physical state which may translate psychologically as decreased self-awareness and self-focus. The finding highlights that one core tenet of spiritual experience is **selflessness**, said Johnstone, adding that he hopes the study "will help people think about spirituality in more specific ways."
In addition to spiritual practices, other **behaviors** and experiences are known to hush the Definer of Me. Appreciation of art or nature can quiet it, Johnstone said, pointing out that people talk of "losing themselves" in a particularly beautiful song. Love and even charity work can also soften the boundaries of "Me," he said.

The greatest **silencing** of the Me-Definer likely happens in the deepest states of meditation or prayer, said Johnstone, when practitioners describe feeling **seamless** with the entire universe.

That is, the highest point of spiritual experience occurs when "Me" completely loses its definition.

The work of Johnstone, Glass, and many others continues to reinforce that brain science proves consistent with the **core principles** of many spiritual, religious, and philanthropic philosophies.

According to Martin Wuttke, the author of Meditation: The Journey Home, "Researchers have been studying the effects of meditation on the brain and body for over **50 years**. One area of interest is the electroencephalograph (EEG), which is the measurement of the electrical activity of the brain (brain waves). The EEG is a direct indicator of states of consciousness and brain function and can be used to determine the effects of **meditation** on the brain.

Different types of meditation produce different effects measured by the EEG but research has identified an important finding that appears in both Tibetan and **Kriya yoga** advanced meditators: as compared to non-meditators and other types of meditation, there is a significant increase in high frequency activity (referred to as gamma) in the frontal lobes of the **brain common** to both types of meditation. The frontal lobes are the seat of the brains executive functions such as concentration, focus, motivation, goal directed behavior, impulse control, and higher order reasoning.

From an **evolutionary** standpoint, the frontal lobes were the last to develop, giving the human brain the 'hardware' for higher order intelligence. Other studies also reveal that the thickness of this region is actually greater in **meditators** versus controls. Findings such as these have generated a new field of study: Neurotheology. From this perspective, the human brain is the medium through which consciousness (God) is expressed. And according to esoteric teachings, the nervous system must undergo systematic refinement in order to process higher and more **expanded states** of consciousness."

Pure energetic food allows us to remain physically, mentally, and emotionally at our OPTIMAL level of WELLNESS, thus our **connection** to our Major Life's Purpose and Spiritual Journey is **amplified**. A live food diet and other practices such as meditation or prayer, yoga, QiQong, exercise, connecting to nature and time alone to nurture and **love yourself** will bring the balance to your life that your WHOLE SELF thrives on.

I INVITE YOU to listen to your body, kindly starting NOW and consider adding the LIFE FORCE of a **plant based** diet to your life as a way of building yourself mentally, emotionally and spiritually so that you can have optimal HEALTH and PREVENT and HEAL from the **causes** of disease. You DESERVE the utmost WELL-NESS… the question is, will you be loving enough to GIVE to **yourSELF**?

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