Like most neurological diseases, Parkinson’s is caused by a mesh of genetic, infectious, epigenetic, environmental, dietary, and lifestyle factors that intersect to create a perfect storm. I have been interested in the herbal treatment of Parkinson’s since I was diagnosed with it eight years ago. This has led me to try a variety of treatments for my clients and myself, from diet and herbs to acupuncture and craniosacral therapy.

**Pathophysiology of Parkinson’s Disease**

Parkinson’s disease is chronic disorder of the nervous system. It isn’t fatal, but it can cause debilitating symptoms that impact everyday movement and mobility. The cells that produce dopamine are damaged in people with Parkinson’s disease. Dopamine is a neurotransmitter that helps communicate messages between different sections of the brain. Without enough dopamine, the brain is unable to send and receive messages and transmission is disrupted. This affects the body’s ability to coordinate movement and can cause walking and balance problems. Hallmark symptoms of Parkinson’s disease include tremors, cogwheel stiffness in hand rotation, gait disturbances, and balance problems. Insomnia, micrographia, and dementia may also be seen.

Parkinson’s disease affects one million Americans. Most cases of Parkinson’s disease occur in people over age 60; younger people rarely have the disease. Some researchers believe that brain and dopamine function begin to decline as the body ages, making a person more susceptible to Parkinson’s. Gender also plays a role in Parkinson’s, with men 1.5 times more likely to develop Parkinson’s than women.

The development of non-traumatic Parkinson’s tends to be slow. An average of 20 years before diagnosis, the person develops an impaired sense of smell, constipation, and eventually urinary and/or erectile problems. Obesity, sleep disorders, and depression may develop 10 years prior to diagnosis, with tremors and gait disturbances due to reduced dopamine developing around the time of diagnosis (Visanji et al. 2013).

The brainstems of people with Parkinson’s disease have abnormal clumps of proteins called Lewy bodies. Lewy bodies contain alpha-synuclein, a misfolded protein that the body is unable to break down. Lewy bodies surround healthy cells, interrupting brain function. Over time, clusters of Lewy bodies cause the brain to degenerate, resulting in impaired motor coordination and dementia. Severe Lewy body concentrations are associated with rapid dementia; on average, dementia tends to occur 20 years after diagnosis in Parkinson’s disease.

**Causes of Parkinson’s Disease**

Although the exact causes of Parkinson’s remain unknown, most researchers agree that it is a combination of environmental and genetic
Like most neurological diseases, Parkinson’s is caused by a mesh of genetic, epigenetic, environmental, dietary, infectious, and lifestyle factors that intersect to create a perfect storm. Major risk factors for Parkinson’s include aging, family history, pesticide exposure, and environmental chemicals (Beitz 2014). The contribution of genetics to neurodegenerative diseases ranges from about 15% for Parkinson’s disease to over 90% with Huntington’s disease (Bertram and Tanzi 2005). According to the Parkinson’s Disease Foundation, exposures to certain chemicals have been linked to Parkinson’s disease, including insecticides, herbicides, fungicides, and Agent Orange, while living in rural areas, drinking well water, and consuming excess manganese have been epidemiologically linked to Parkinson’s (PDF 2016). Parkinson’s disease occurs more frequently in people who have jobs in welding, agriculture, and industrial work with exposure to toxic chemicals. Football players, boxers, and soldiers also have higher incidences of Parkinson’s due to head trauma.

In addition, many neurodegenerative diseases begin with the dysfunction of mitochondria, the powerhouses of the body’s cells. Disturbances in mitochondrial metabolism are now known to play a role in aging and many common diseases, including heart disease, diabetes, Parkinson’s disease, multiple sclerosis, and Alzheimer’s disease. Mitochondria increase the number of proteins that a cell can evolve, inherit, and express by four to six orders of magnitude (Lane and Martin 2010).

Less-Recognized Factors in Neurodegenerative Disease

Not everyone exposed to environmental toxins develops Parkinson’s, nor does everyone with Parkinson’s have toxin exposures in their past. This indicates that a combination of genetic, epigenetic, and environmental factors are involved. Neurodegenerative diseases may also involve an infectious trigger, a leaky gut, or an inflamed brain, factors which are now being explored for their role in these diseases.

Infectious Triggers

While multiple sclerosis (MS) has long been understood to have an infectious trigger, other neurodegenerative diseases have only recently been understood to potentially result from infections which occurred years or decades earlier. A virus can penetrate the gut wall, causing a normal protein to misfold and become self-replicating. Certain genetic conditions can cause this as well in a small percentage of people. This self-propagating misfolded protein is called a prion. These self-replicating prions begin their slow journey up the vagus nerve.

In 2003, German neuropathologist Heiko Braak presented a hypothesis that the Parkinson’s disease process begins in the digestive tract and in the brain’s center of smell. The theory is supported by the fact that symptoms associated with digestion and smell occur very early on in the disease process. Researchers at Lund University recently found the mechanism by which diseased prions are passed along the vagus nerve (Holmqvist et al. 2014) and other researchers showed that a severed vagus nerve will prevent passage of prions to the brain (Svensson et al. 2015). In the case of Parkinson’s disease and multiple system atrophy, the prion is alpha-synuclein. The normal synuclein proteins found in the nerves are responsible for memory, cell-to-cell signaling in the brain, and stem cell production. The misfolded pathological variant, alpha-synuclein, induces the formation of tightly packed beta-amyloid plaques and tangles. While people with Parkinson’s disease have a genetic predisposition to form alpha-synuclein, researchers are speculating about the possibility that this prion may be triggered by an infective agent, such as a slow virus or prion.

Our understanding of prions is primitive and rapidly evolving. In fungi, prions are not known to cause disease. In yeasts, prions seem to confer an epigenetic ability to mutate, which could allow for superior adaptation to new conditions. In mammals, prions are seen as incurable disease vectors, but they actually may be more like biofilms (bacterial aggregations), which can have either positive or negative impacts on the host, and may possibly be amenable to “hijacking” under certain circumstances toward positive ends.
Leaky Gut

Although prions or viruses can enter the body cavities without leaky gut, their entry and spread can be accelerated if the gut integrity is compromised. Leaky gut occurs when the tight junctions between the intestinal wall cells become enlarged, allowing through compounds that should not go into systemic circulation. While there may be gastrointestinal discomfort, this is not necessarily required for leaky gut to be present.

The gut microbiome’s beneficial bacteria and fungi provide 80-90% of human immune function. By lining every square inch of our intestinal tract with some 1,000 different species of bacteria and other organisms, the microbiome not only provides a barrier to entry for microorganisms that arrive with food, it also directly kills many pathogens, such as undesirable bacteria, viruses, fungi, parasites, and yeast. A healthy microbiome reduces inflammation and infection. Microbes also function as immunomodulators and produce a number of factors that directly boost the immune function, as well as a number of B vitamins that offer nutritional immune support. The gut microbiome also tends to shelter the vagus nerve from assault, thus protecting the gut-brain axis, whereby gut and brain communicate with each other to stimulate digestion, enhance immune response, and produce neurotransmitters and other metabolites.

Cesarean births, low breastfeeding rates, antibiotics, use of toxic antimicrobial cleaners, toxin exposures, and nutrient-poor foods all conspire to reduce the living wallpaper of the gut microbiome (Blaser 2013). When gut microbes are missing there is less protection for the gut walls and the blood. Factors leading to Parkinson’s and other neurodegenerative diseases can be accelerated by the resulting inflammation. In addition, the viruses that are kept out by a healthy microbiome could activate prions were they to get into circulation.

Due to their ability to cause inflammation, allergens play a significant role in gut integrity. Gluten is perhaps the most irritating, with over 30 potential allergenic proteins in wheat (Triticum spp.) alone. In the gluten-sensitive person, the immune system tags circulating gluten to be attacked by antibodies; because gluten is structurally similar to nervous and endocrine tissue, the immune system also attacks those tissues. Transglutaminase enzymes trigger villous atrophy in the gut and neurological disorders (Kharrazian 2013). Some patients will manifest exclusively with neurological problems (Hadjivassiliou 2014). Gluten also triggers the hormone zonulin to open tight junctions in both the intestines and the blood-brain barrier.

Gut researcher Dr. Alessio Fasano (2011) says, “Together with the gut-associated lymphoid tissue and the neuroendocrine network, the intestinal epithelial barrier, with its intercellular tight junctions, controls the equilibrium between tolerance and immunity to non-self-antigens. Zonulin is the only physiological modulator of intercellular tight junctions described so far that is involved in trafficking of macromolecules and, therefore, in tolerance/immune response balance. When the finely tuned zonulin pathway is deregulated in genetically susceptible individuals, both intestinal and extraintestinal autoimmune, inflammatory, and neoplastic disorders can occur. This new paradigm subverts traditional theories underlying the development of these diseases and suggests that these processes can be arrested if the interplay between genes and environmental triggers is prevented by reestablishing the zonulin-dependent intestinal barrier function. This review is timely given the increased interest in the role of a ‘leaky gut’ in the pathogenesis of several pathological conditions targeting both the intestine and extraintestinal organs.”

It has been shown that Parkinson’s disease sufferers have different microbiota than do healthy counterparts. The more Enterobacteriaceae family bacteria they have, the more severe the Parkinson’s symptoms. An observed lack of Prevotellaceae family bacteria in Parkinson’s sufferers could mean that these bacteria have a property that could protect their host from the disease, or it could merely indicate that intestinal dysfunction inhibiting Prevotella spp. is part of the Parkinson’s pathology (Anderson 2015).
**Vicia faba**
(fava bean, broad bean)

Thomé OW. 1885. Flora von Deutschland Österreich und der Schweiz, Vol. 3
Leaky Blood-Brain Barrier
The blood-brain barrier separates the circulating blood from the extracellular fluid of the brain and central nervous system. The blood-brain barrier allows the passive diffusion of water, some gases, and fat-soluble molecules. It also allows the selective transport of molecules such as glucose and amino acids that are crucial to neural function, usually in conjunction with a transport molecule. The blood-brain barrier was customarily thought of as a fairly solid filter of large molecules, but we now recognize that the blood-brain barrier is a selective permeable barrier. The blood-brain barrier may prevent the entry of lipophilic neurotoxins by way of an active transport mechanism mediated by P-glycoprotein.

The blood-brain barrier is formed of brain endothelial cells, which are connected by tight junctions also ruled by zonulin. The tight junctions of the blood brain barrier prevent the entry of most infectious organisms, as well as many antibiotics. The blood-brain barrier naturally becomes more permeable during inflammation, allowing phagocytes and some antibiotics to move across the barrier. Systemic inflammation – from disease or from circulating leaky-gut proteins – can open up the tight junctions of the blood-brain barrier. This otherwise beneficial permeability may allow bacteria, viruses, heavy metals, and other undesirable elements to infiltrate the brain. Spirochetes, like those of Lyme disease or syphilis, and Group B Streptococci of meningitis, create small cytotoxins to pass through the blood-brain barrier. Prions or viruses that get into circulation via leaky gut are small enough to pass through the blood-brain barrier.

The GABA challenge is a test to determine whether the blood-brain barrier is leaking. Gamma-aminobutyric acid (GABA) is an inhibitory neuropeptide that does not travel from the kidney to the brain and does not cross an intact blood-brain barrier. When GABA levels increase in the brain, one tends to slow down, get tired, feel sluggish, and lose fine motor coordination. To test the integrity of the blood-brain barrier, take two capsules of GABA in the evening (two hours after dinner) to observe the reaction. There should be no brain effect at all: no slowing, intoxication, or uncoordinated feelings. If symptoms are felt, the blood-brain barrier is leaky and needs to be healed. (Note: Approximately 20% of people paradoxically feel stimulated with increased GABA in the brain.)

Herbal Treatment for Parkinson’s Disease
Working with myself and with clients, I have developed an appreciation for the complexity of Parkinson’s disease and other neurodegenerative diseases. Some factors are more amenable to change than others, but there is much that herbalists have to offer for affecting symptomatic and progressive aspects in the course of treatment of neurodegenerative diseases.

It is likely that circulatory and alterative herbs will help with Parkinson’s and other neurodegenerative diseases if they can cross the blood-brain barrier. Herbs traditionally used for neurodegenerative diseases include Allium sativum (garlic), Bacopa monnieri (bacopa), Centella asiatica (gotu kola), Scutellaria lateriflora (skullcap), Celastrus paniculatus (black oil plant), Nicotiana tabacum (tobacco), Withania somnifera (ashwagandha), Ricinus communis (castor bean), Salvia officinalis (sage), Salvia miltiorrhiza (red sage), Ginkgo biloba (ginkgo), Huperzia serrata (toothed clubmoss), Angelica sinensis (dang gui), Uncaria tomentosa (cat’s claw), Hypericum perforatum (St. John’s-wort), Physostigma venenosum (Calabar bean), Acorus calamus (calamus), Curcuma longa (turmeric), Terminalia chebula (chebulic myrobalan), Crocus sativus (saffron), Enhydra fluctuans (marsh herb), Valeriana spp. (valerian), and Glycyrrhiza glabra (licorice). In Chinese medicine, numerous plants have been used to treat neurological conditions and stroke, including Sapashnikovica divaricata (fang feng), Scutellaria baicalensis (Baical skullcap), Angelica pubescens (du huo), Morus alba (white mulberry), Salvia miltiorrhiza (red sage), Uncaria rhynchophylla (gou teng), and Ligusticum striatum (chuan xiong) (Kumar and Khanum 2012; Gong and Sucher 1999).
There are specific herbal interventions that can address the loss of dopamine in Parkinson’s disease without the side effects of pharmaceutical L-DOPA (levodopa), which is converted to dopamine in the brain. Tyrosine is the base of dopamine synthesis and can be derived from N-acetyl-L-cysteine (NAC). *Mucuna pruriens* (red velvet bean) and *Vicia faba* (fava bean) provide L-DOPA and flavonoids. Beta-phenethylamine (PEA) can be derived from *Theobroma cacao* (chocolate). Vitamin B6 in its pyridoxal phosphate (P5P) form, blueberry extract, and R-lipoic acid (RLA) round out the cofactors needed for dopamine synthesis.

*Vicia faba* contain L-DOPA and can be used by those who do not suffer from favism, a recessive genetic enzyme deficiency. Although Dr. Weil (2010) says a person would need the equivalent of a 16-ounce can of fava beans to get an effective dose, the pods are a richer source than the beans, and can be tinctured or consumed. According to one study, blended frozen fava pods and beans given at 100-200g doses were equivalent to 25-50g of pharmaceutical levodopa and carbidopa (L-DOPA stabilizer), and worked sooner and longer (Kempster et al. 1993).

*Mucuna pruriens* has long been used as a treatment for Parkinson’s disease in Ayurveda. *Mucuna* is a natural source of L-DOPA. A 2004 British double-blind study compared the standard dose of levodopa to a powdered preparation made from *Mucuna* beans. The *Mucuna* had a more rapid onset against Parkinson’s symptoms and its positive effects were longer lasting than those of the levodopa (Katzenschlager et al. 2004). Starting dosage of the fresh *Mucuna* bean is one-half to one fresh bean, three times a day.

While *Hypericum perforatum* (St. John’s-wort) and 5HTP have been suggested to bolster *Mucuna* or *Vicia* (much as carbidopa bolsters levodopa), I know of no specific research that would support this use. *Hypericum perforatum* is helpful for nerve integrity, however, so its use in general formulas for Parkinson’s disease is supported.

*Panax ginseng* (ginseng) has been found to be neuroprotective in a progressive model of Parkinson’s disease (Van Kampen et al. 2013). Oral administration of this extract significantly reduced dopaminergic cell loss, microgliosis, and...
accumulation of alpha-synuclein aggregates. Another study shows that ginseng inhibits cytotoxicity, increases cell signaling, may slow the progress of Parkinson’s disease (Cho 2012).

Despite their negative stigma, caffeine and nicotine may both help in Parkinson’s disease. Caffeinated coffee consumption and tobacco use are shown to strongly prevent and to reduce the progression of Parkinson’s disease. This association is stronger in men. Caffeine can improve motor manifestations of the disease, like gait freezes and tremor. Nicotine, a drug that stimulates nicotinic acetylcholine receptors (nAChRs), influences several functions relevant to Parkinson’s and protects against nigrostriatal (dopamine pathway) damage and the dyskinesia caused by L-DOPA. While smokers have lower rates of Parkinson’s, nicotine needn’t be smoked to be beneficial (Quik et al. 2009).

Inhibition of monoamine oxidase (MAO) holds great promise in the treatment of progression of Parkinson’s disease. MAO is an enzyme that breaks down dopamine and other neurotransmitters in the body. *Banisteriopsis caapi* (yagé) bark, is combined with *Psychotria viridis* (chacruna) leaves to brew a hallucinogenic beverage called ayahuasca. *Banisteriopsis* contains the alkaloids harmine, harmaline, and tetrahydroharmine, which are MAO inhibitors, similar to pharmaceutical MAO-inhibiting antidepressants. Researchers say MAO inhibition by alkaloids in ayahuasca, combined with the antioxidant actions of epicatechin and procyanidins, provides protection against the neurodegenerative effects of Parkinson’s disease (Samoylenko et al. 2010); however, this treatment needs to be regularly repeated and practical use is diminished by hallucinations and other side effects.

Non-psychoactive cannabidiol (CBD) oil from *Cannabis* species holds promise in the treatment of Parkinson’s both for its anti-inflammatory properties and its effect on prion accumulation and toxicity. CBD may protect neurons against the many molecular and cellular factors involved in the neurodegenerative process, which takes place during prion infection. When combined with its ability to target the brain and its lack of toxic side effects, CBD may represent a promising anti-prion herbal medicine (Dirikoc et al. 2007). Investigation on whether a whole-plant CBD oil from *Cannabis* strains not bred for excessive THC should also be considered.

*Curcuma longa* (turmeric) rhizome is neuroprotective for alpha-synuclein-linked Parkinsonism and alleviates the effects of reduced glutathione, the body’s main cellular antioxidant (Mythri and Bharath 2012; Jagatha et al. 2007). A principle component of turmeric, curcumin exhibits antioxidant, anti-inflammatory and anti-cancer properties, crosses the blood-brain barrier, and is neuroprotective in neurological disorders. Several studies in different experimental models of Parkinson’s disease strongly support the clinical application of curcumin. Because there are other constituents
in addition to curcumin in turmeric, whole-rhizome preparations combined with piperine (Piper spp. extract enhances bioavailability by 2000 times at 2% concentration in formula: Shoba et al. 1998) may provide superior coverage.

Watermelon, used as an herb for “summer heat” in Chinese Medicine, has high levels of glutathione, electrolytes, and fluids, all helpful in Parkinson’s disease. To use or make glutathione, water is needed, which is abundant in watermelon. Dehydrated people with Parkinson’s may not make as much glutathione. Citrulline in the white skin of watermelon increases arginine and ornithine in the urea cycle, which helps to remove nitrogenous wastes from the body.

Essential oils have a place in the alleviation of Parkinson’s disease. In order to cross the blood-brain barrier, lipid-soluble molecules must be less than 800-1000 atomic mass units (amu) in molecular weight. The molecules of essential oils are not only small – on average less than 500amu – but are lipid soluble as well (Stewart 2015). Citrus spp. essential oils like bergamot, sweet or blood orange, grapefruit, and lemon are stimulating for lymph glands. Peppermint, ginger, and rosemary essential oils are traditionally considered useful for circulation and will help lymph nodes drain. Smelling the essential oils will bypass the blood-brain barrier and applying them topically over the nape of the neck will put them into circulation.

**Treatments for Gut and Brain Barriers**

Herbal and lifestyle interventions for leaky gut include bitters before meals and betaine HCL and/or pancreatic enzymes to prevent undigested irritants. If fat digestion is a problem, animal bile, taurine, Vitamin B6, or glycine can help, along with food anti-stagnation herbs like Chinese Craetagus pinnatifida (hawthorn) berry, Linum usitatissimum (flax) seed, Plantago spp. (plantain) seed, or Salvia hispanica (chia) seed. For healing the gut lining, demulcents like Ulmus rubra (slippery elm) bark powder, Althea officinalis (marshmallow) root powder, Glycerizia glabra (licorice) root, Plantago spp. (plantain) leaf, Aloe vera (Aloe) gel, and seaweeds are helpful. Quercitin also has been shown to repair the gut lining (Suzuki and Hara 2009).

L-glutamine is a supplement that helps heal the gut walls (Bertrand et al. 2015); both bone broth and cabbage juice can provide similar benefits. N-acetyl glucosamine (NAG) and methylsulfonylmethane (MSM) are helpful for healing tight junctions in the gut, although NAG comes from shellfish and MSM has sulfur, both of which could be allergenic for some people. Zinc carnosine helps heal the stomach and gut lining as well (Mahmood et al. 2007).

Further interventions to support a healthy gut microbiome include a diet that is high in fiber, fermented foods, sources of prebiotic resistant starches, foods straight from the garden, and high grade probiotics. Probiotics may not “take” even when packaged with prebiotics, unless the dietary balance supports them, and they only replace a few of the 1,000+ strains of potential probiotic organisms. I prefer to clinically apply probiotic foods with intact prebiotics, and preferably those with fat, which protects them from stomach acids. To that end I suggest plain full-fat yogurt and kefir from the milks of various animals, bleu or gorgonzola cheeses with live veins, several types of miso, olives, fermented fish sauces, and natto (fermented soy beans). Sauerkraut, pickles, kimchee, pickled turmeric, pickled ginger, and other traditionally fermented foods can be of use as well.

Interventions for leaky brain are approximately the same as for leaky gut, with less emphasis on digestive herbs. A gluten and allergen-free diet, anti-inflammatory herbs, bone broth, glutamine, and hydrolyzed gelatin can help.

In Chinese medicine terms, the blockage by Lewy bodies would be called “stagnation,” Phlegm, or Phlegm-Damp. Parkinson’s disease progression can be slowed with drainage of the brain’s buildup of Lewy bodies (alpha-synuclein plaques). Drainage occurs through the glial lymphatic system (glymph) and the newly revealed cerebral lymphatic system (Louveau et al. 2015). This happens during sleep, in response to exercise, through osteopathic manipulation or craniosacral therapy, and perhaps with the assistance of small-molecule...
lymphatic botanicals that are able to cross the blood-brain barrier. For example, plants containing brain-penetrating benzopyrones may be helpful, such as *Citrus* spp., *Glycyrrhiza glabra* (Licorice), and *Angelica* spp., which are commonly included in TCM formulas to reduce Phlegm-Damp (Dharmananda 2000, 1998).

Since pesticide exposure and heavy metals are associated with Parkinson’s and other neurodegenerative diseases, it is likely that detoxification is appropriate. Leaky gut and leaky brain should be addressed first, however, before any detoxification regimen is attempted. It is very important to avoid chelation of heavy metals while the blood-brain barrier is leaky, as the heavy metals can be redeposited in the brain. Detoxification protocols should focus on elimination via urine and the bowel, promoting rapid and soft bowel movements to reduce abrasion of the compromised intestinal walls.

**Dietary Interventions for Parkinson’s Disease**

In Parkinson’s disease, 50-80% of patients have abnormal glucose metabolism. (Kierbutz 2008; Sandyk 1993) A recent review in Experimental Gerontology reported that people with diabetes have double the risk of developing dementia (Exalto et al. 2012). Alzheimer’s disease is now called “Type 3 Diabetes.” It is clear that there is an inflammatory connection between disordered blood glucose and neurodegenerative diseases.

Low-carbohydrate or ketogenic diets have a markedly positive effect in a number of neurological conditions. High-ketone supplemental shakes like Axona® have been developed for people with Alzheimer’s disease. Ketogenic diets have been used to control epileptic seizures since the 1920s. Aside from mitochondrial dysfunction, this suggests that there are other neurological benefits from a low-carbohydrate or ketogenic diet comprised of nutritionally dense foods.

Burning ketones rather than glucose for energy strengthens mitochondrial function in neurodegenerative diseases. Too much food stimulates a breakdown in mitochondria, while low food intake increases mitochondrial size, reduces breakdown, and increases mitochondrial respiration and ATP (energy) production. When carbohydrates are limited, the mitochondrial metabolism moves to burn stored fats to survive periods of carbohydrate deprivation (Wallace and Fan 2010). In a fasting person or a “Paleo” diet follower, the ketone body displaces glucose as the predominant fuel for the brain, decreasing the need for glucose synthesis in the liver and kidneys and accordingly sparing its precursor, muscle-derived amino acids (Cahill and Veech 2003).

Interventions for the mitochondrial dysfunction associated with Parkinson’s disease include a low carbohydrate/ketogenic diet, intermittent fasting, aerobic exercise, addressing nutrient deficiencies, and a diet high in polyphenols, which are antioxidant and anti-inflammatory. Herbs that are high in polyphenols and can be taken as food or in herbal formulas include *Rosa* spp. (rose) hips, *Lycium barbarum* (goji) berries, *Morus Panax ginseng* (Chinese ginseng).
Eight years ago I was diagnosed with Parkinson’s disease. It was a time of intense stress and I thought that I had trapped a nerve in my arm or had developed sympathetic tremors due to a relative going through tardive dyskinesia. When I finally got myself to a doctor, I was incredulous at the diagnosis. In retrospect, a quivering tongue that didn’t fit my symptom picture and a diminished but far from absent sense of smell might have been very early signs of the disease. I didn’t want to start with levodopa, because it seems to have a limited life. And I was intensely curious to explore why my body might not be making dopamine.

I had just taken a seminar on acupuncture for “shaking diseases,” so I relied upon that and some generic granule formulas from the instructor-acupuncturist to build Blood, dispel Phlegm, and sedate Wind. After a few months, I modified the formulas with cat’s claw thorns (Uncaria rhynchophylla, gou teng), scorpion (Mesobuthus martensii, quan xie), and centipede (Scolopendra sp., wu gong). The granule form, while convenient, lacked the bite of the raw herbal decoction.

My doctor told me about high dose CoQ10, used in Europe for Parkinson’s, so I tried that for a few years. I added fava bean (Vicia faba), then started alternating fava and velvet bean (Mucuna pruriens), both of which are sources of L-DOPA with fewer side effects. I have been unable to actually grow the Mucuna so that I could tincture the pods and tendrils. After several ineffective supplements, I hit upon Keter Wellness’ Mucuna L-DOPA 20%, which I take twice a day in lieu of the levodopa/carbidopa combination.

In my experience, dietary changes have been very hard to implement. I aspire to Dr. Terry Wahls’ high-vegetable paleo diet with coconut oil, but cannot force nine cups of vegetables and berries down, whether in kale chips, shakes, soups, or meal form. The Wahls protocol was based on the nutritional status of today’s foods, which average 85% lower vitamins and minerals than historic foods. It may be that biodynamic food grown on rich soil or wildcrafted weed greens would provide the same nutrients in a more moderate amount of food. I am thankful for sea greens (seaweeds), which bundle a lot of minerals in a small package, and watermelon, which is a good source of glutathione.

Food preparation is challenging. By the time I prepare food, my fatigue level often does not allow me to eat. This is common in Parkinson’s and is difficult to overcome unless the client has a caretaker to prepare food.

I used a rotating group of nootropic supplements: Jigsaw timed-release magnesium and B vitamin complex, magnesium L-threonate to cross the blood brain barrier, high levels of Vitamin D, fermented cod liver oil, adaptogenic herbs, alphalipoic acid, krill oil, CoQ10, turmeric, Hardy’s multivitamin designed for brain health, and David Winston’s OsteoHerbTM blend. I also take a tincture of nettle seed (Urtica dioica), since Parkinson’s stresses the kidneys and adrenals.

I have most recently been using a tincture of medical marijuana (Cannabis spp.) with a 1:1 CBD:THC ratio, taking 5g sublingually three times a day as prescribed. This works much better than the hemp based Cannabis oils with no THC.

Craniosacral balancing is the bodywork to which I best respond, followed by scalp acupuncture. These techniques seem to permit increased lymphatic drainage from the cranium. Walking with two walking sticks (held like cross country ski poles) and dancing seem to be the best exercises, although a foot injury has largely sidelined me because the Parkinson’s tremor won’t allow the foot to heal. Singing in a chorus keeps my voice intact.

I have unsuccessfully tried stem cell implants, hyperbaric oxygen chambers, and two forms of pulsed electromagnetic therapy. It seems that there is still more to be learned with these techniques. For an expanded rundown of all of my treatments and experiments, visit www.naturalhealthbykaren.com and type Parkinson’s into the search box.

When I was first diagnosed with Parkinson’s disease, my research showed that a shortened lifespan was expected, perhaps ten years from diagnosis. This proved to be bad information – I will likely have a normal lifespan. But it makes for a good spiritual practice, as ten years is a long enough time to accomplish a lot, but not so far away that I can keep putting things off. So I keep ten years as a movable deadline and continue doing what I love most in life.

Dr. Terry Wahls is a physician who suffers from MS. A few years ago, she was in a tilt-recline wheelchair and afraid of losing her hospital teaching position and her medical insurance. So she began to look for supplements that might arrest her decline. She found that animal-based Omega-3 essential fatty acids; Vitamins B1, B9, and B12; creatinine; iodine; and CoQ10 stalled her deterioration. Yet she was not improving and began to wonder which foods might provide a wider range of the nutrients that she needed. She developed a very high vegetable “Paleolithic” diet and her symptoms significantly reversed. Within a year, she was able to ride horses and commute by bicycle to work. A summary of the Wahls protocol (2014) is:

- Nine cups of vegetables each day, including kale, brightly colored vegetables, leafy greens, and sulfur-rich onions/garlic;
- Green drinks, overnight infusions, kale chips, spirulina, and sea vegetables;
- Hiding vegetables in sauces and side dishes;
- No gluten and minimal grains;
- Grass fed organic meats, organ meats, deep sea fishes, and game;
- Colorful low-sugar fruits;
- Nuts and coconut;
- Supplemental Vitamin D;
- No artificial additives like aspartame, no MSG, and no added sugar.

It is difficult for many people to take nine cups of vegetables daily, so a combination of nutritionally dense foods and whole-food supplements might be more realistic. Given the deterioration of our soil under industrial farming practices, it is likely that we need to consume more vegetables than appetite permits to get the nutrients we need. While Wahls designed the diet for her multiple sclerosis, this diet is suitable for a number of neurodegenerative diseases because it is high in minerals, low in empty calories, fairly low in carbohydrates, and can be a ketogenic diet if desired.

**Overall Treatment Strategies for Neurodegenerative Diseases**

Constitutional and symptomatic treatment should be at the base of all herbal treatment of neurodegenerative diseases. Heat and cold, dry and damp, other tissue states, and energetic considerations will guide the selection of herbs.

First it is necessary to improve the diet and sleep. If necessary, leaky gut and leaky brain should be next addressed, along with including coconut and other medium-chain triglyceride (MCT) oils to build the brain. When the blood-brain barrier is intact, removal of pesticides
and heavy metals through detoxification can be addressed. This process should be accompanied by body work, essential oil applications, and exercise designed to increase lymphatic flow from and within the brain. From my experience, other herbal therapies can be engaged at this point to address the symptoms and causes of the neurodegenerative condition:

- For support of channels dealing with aging, the brain, and the hypothalamic-pituitary axis (HPA): Adaptogens like Panax ginseng (Chinese ginseng), Panax quinquefolius (American ginseng), Cordyceps sinensis (corydiceps), Rhodiola rosea (rhodola), and Withania somnifera (ashwagandha) would form a baseline of treatment for neurodegenerative diseases.

- For anxiety about loss of function, often accompanied by insomnia: Eschscholzia californica (California poppy), Scutellaria lateriflora (skullcap), Bacopa monnieri (bacopa), Avena sativa (oat straw or milky oats), Valeriana spp. (Valerian), and Ziziphus jujuba (jujube).

- For depression: Actaea racemosa (black cohosh), Lavandula vera (lavender), and Hypericum perforatum (St. John’s-wort).

- For muscle spasms: Piper methysticum (kava), Scutellaria lateriflora (skullcap), Actaea racemosa (black cohosh), and magnesium. Magnesium chloride can be found in flake or liquid form for topical and bath use. A liniment made with the flakes and ethanol seems to better penetrate the skin than the “magnesium oil,” which is actually a brine.

- For scarring (as in MS) and low circulation: Boswellia spp. (frankincense), Commiphora myrrha (myrrh), Centella asiatica (gotu kola), and Salvia miltiorrhiza (red sage).

- For dementia: Ginkgo biloba (ginkgo), Bacopa monnieri (bacopa), Centella asiatica (gotu kola), Huperzia spp. (toothed clubmoss), Cannabis spp., Cocos nucifera (coconut) oil, and mental and physical stimulation.

The brain needs fuel, preferably from ketones. The brain needs oxygen from deep breathing, aerobic exercise, circulatory stimulants like frankincense, and oxygen carriers like Huperzia. The brain needs protection from inflammation and physical trauma so that the blood-brain barrier remains intact. And the brain needs stimulation to induce neuroplasticity, which tends to come from activities that challenge and delight our creative minds. Although we may not be able to prevent prions or viruses from entering the body, there is much we can do to slow their progress, reduce their ability to create nervous system blockages, and remain active within our life spans.

REFERENCES


