**Parkinson’s Disease Complementary Treatment with Herbs, Vitamins, and Supplements**

http://www.parkinson.org/Parkinson-s-Disease/Treatment/Complementary-Treatment

Our understanding of Parkinson’s disease has evolved from one in which the motor symptoms were the primary focus of treatment to one where the broader effects of the disease process are more likely to be acknowledged and treated as well.  Persons with PD who are seeking relief from their symptoms may decide to explore complementary therapies, which can support or complement Western or traditional medicine.  While there are many modalities of complementary medicine that might be of interest to someone living with PD, this section focuses on herbs, vitamins and supplements.

If you are considering complementary therapies, we strongly urge you to investigate the credentials and experience of anyone offering advice or product recommendations regarding such therapies.

KEY POINTS

* Most herbs and supplements have not been rigorously studied as safe and effective treatments for Parkinson’s disease.
* The FDA does not strictly regulate herbs and supplements. There is no guarantee of safety, strength or purity of supplements not monitored by the FDA.

**Antioxidants: Vitamin C and E, Mediterranean Diet**

*Vitamins C and E*

* Free radicals are toxic molecules produced by virtually every cell in the body, usually in response to stress or injury.
* For example, sunlight exposure, cigarette smoking, and infection can generate free radical formation in some cell types. These particles are thought to be particularly toxic to brain cells.
* Antioxidants “soak up” or scavenge free radicals. Vitamins C and E are antioxidants that fight free radicals, and may protect brain cells.
* Some concerns have been raised about possible side effects of Vitamin E supplements; this may result from the form of Vitamin E commonly available, alpha-tocopherol. A “mixed” supplement, containing multiple forms of Vitamin E, may turn out to be safer or more effective.
* More research is needed; meanwhile dietary sources include whole grains, wheat germ, avocados, nuts and vegetable oils
* Since there is evidence that free radical damage is involved to some extent in PD, Vitamin E, a moderately potent antioxidant was studied in people with early PD in a large study in the 1980s.
* The study  of Vitamin E did not demonstrate a slowing effect or neuroprotection, and in fact, showed that it could potentially be harmful to PD patients.  Researchers believe that more studies are required.
* However, it is possible that dietary Vitamin E may be used more easily by the body than the supplements used in the study.

***The Mediterranean Diet***

* This might be another reason to consider the Mediterranean diet.
* There is some evidence that the so-called Mediterranean diet, a diet high in monounsaturated fats, such as olive oil, may be beneficial in reducing blood pressure and cardiovascular disease.
* The diet also emphasizes fish, especially those high in Omega-3 fatty acids, such as salmon, and foods containing antioxidants.
* Persons with PD are often particularly concerned about the possibility that protein intake can decrease the effectiveness of carbidopa/levodopa, one of the common medications used to treat PD.
* Levodopa absorption in the brain can be slowed by a high protein meal, and  as the disease progresses, most patients find that their symptoms are better controlled if they have most of their protein later in the day.
* Since PD can affect digestive function, many patients do notice symptoms such as constipation and early satiety (the sensation of feeling very full after consuming a small amount of food).

*Summary*

It is important for persons with Parkinson’s disease to let their health care providers know of any herbal products, vitamins, over-the-counter medications and dietary changes they are using or have made on a regular basis. Some of these compounds may interact or interfere with PD medications.

**Coenzyme Q10**

* Cells need energy to survive and function.
* They contain mitochondria, which are “batteries” that produce energy.
* In Parkinson’s Disease, there seems to be a disturbance in the function of these batteries.
* Coenzyme Q10 seems to affect this energy-generating mechanism in cells, although the exact mechanism remains a mystery.
* A recent study suggested that treatment with 1200 mg/day of Coenzyme Q10 resulted in improvements in measures of motor function over the fixed period of the study when compared to lower doses of the same compound or to a placebo compound.
* Coenzyme Q10 was also found to be safe in this trial.
* A larger trial sponsored by NIH and the Parkinson Study Group was ternimated in May 2011 because it showed no neuropotective benefit or symptomatic benefit of Coenzyme Q10 for people with early Parkinson’s disease. However, this negative finding may help scientists to close in on several possible mechanisms and to focus on a set of more promising drugs and studies.
* Findings of this study are specific to PD and they do not reflect the possible value Coenzyme Q10 may have in other disorders.

**Calcium and Vitamin D**

*Calcium*

Getting enough calcium can be difficult when you have PD as many patients with PD find dairy foods are more likely than other protein foods to inhibit levodopa absorption. Here are some recommendations that will help you meet your calcium requirements:

* Calcium-fortified orange juice
* Calcium-fortified-rice and soy milk alternatives for use on cereal, smoothies, and in many cooked dishes.
* Breakfast cereals and other foods fortified with calcium.
* You might also consider taking a calcium supplement—calcium citrate is often a better choice.
* Chewable calcium tablets are better absorbed, because they are already broken down when they reach the stomach.

*The current recommendation for vitamin D is 400 IUs for people age fifty or older; and 600 IUs daily for those over the age of 70.*

*Vitamin D*

* Without adequate amounts of vitamin D calcium can’t be absorbed by the body.
* If you live in a sunny area, vitamin D is easy to get through about one hour per week outdoors in the sunshine with the face, hands, and arms exposed.
* Because vitamin D is stored, our bodies can conserve enough D during the summer to last us through the winter.

If you do not live in a sunny area or you mostly stay indoors here’s what you can do by tapping into foods rich in vitamin D to get the amount you need:

Food Sources of Vitamin D:

* Fortified foods such as milk and milk substitutes, milk products, margarine and cereals.
* Fatty fish, such as salmon and fish liver oils.
* Liver
* Eggs

**Ginger (Zingiber Officinalis)**

* Ginger in almost any form is excellent for nausea and vomiting, whether the nausea stems from something as simple as motion sickness or as a side effect of medications.
* Fresh ginger root, available in the produce section of grocery stores and markets, can be prepared as a liquid decoction. It can also be taken in other forms:
* Cover a 1-inch slice in water, bring to a boil, and simmer for 30 minutes.
* Ginger is also available in health food stores as a liquid; a drop or two can be added to tea or other beverages.
* Crystallized ginger, available as a cooking spice, is another option. A small piece can be nibbled at the first sign of queasiness, offering an easy and convenient dose form.
* Zingerone, a compound found in ginger root, seemed to have a protective effect on dopamine containing neurons in a study done in Japan using a mouse model of PD (Kabuto H 2005).

**Green Tea Polyphenols (GTPs)**

* GTPs have antioxidant and free radical scavenging activities.
* There have been some studies suggesting that these compounds could have a neuroprotective effect and possibly even a treatment effect in PD.
* The Chinese Ministry of Health and the Michael J. Fox Foundation, with the assistance of Dr. Caroline Tanner of the Parkinson’s Institute and Clinical Center in Sunnyvale, CA (NPF Center of Excellence) are currently studying whether GTPs can slow the progression of PD in a large, placebo-controlled study.

***Caution:***

* Green tea products do contain caffeine, which should be taken into consideration when using them.

**St. John’s Wort (Hypericum Perforatum)**

* This herbal supplement is a popular anti-depressant, working in a pharmacologic manner similar to the prescription serotonin re-uptake inhibitors (SSRIs).
* It may be effective in mild to moderate depression but two studies reported no benefit in major depression.
* In Germany, where it is the most frequently prescribed andepressant medication, the dose commonly used is 300 mg three times daily.
* Although Hypericum Perforatum is one substance known to be present in the flowers and leaves of this plant, it also contains other unidentified compounds, which appear to be very active.
* In one study of Hypericum Perforatum in a mouse model of PD, there appeared to be some inhibition of the effect of the toxin (MPTP) used to cause Parkinsonism.

***Caution*:**

* St. John’s Wort may interfere with certain PD medications, most particularly MAO-B inhibitors.
* St. John’s Wort should not be used concurrently with other antidepressant medications. People taking Prozac, Zoloft, Paxil or other SSRIs risk serious overdose effects by using Hypercom.
* St. John’s Wort should not replace traditional prescription medicine for the treatment of a serious or major depressive episode.
* Those who take blood thinners such as aspirin, heparin or warfarin (Coumadin) should not take St. John’s Wort.

People with PD who also take asthma medications, steroids or birth control pills should consult their physicians or health care providers before taking St. John’s Wort.

**Gingko Biloba**

* Gingko research in the U.S. has been limited to stroke recovery and Alzheimer’s disease, but Dr. James A. Duke, author of The Green Pharmacy, suggests that it might be helpful in PD because it improves blood circulation through the brain, possibly delivering more levodopa.
* While Dr. Duke suggests that significantly higher doses might be useful in people with PD, doses higher than 240 mg per day may cause diarrhea.
* Ginkgo also has some “alerting” properties and therefore may be helpful in combating daytime sleepiness—a common side effect of levodopa/carbidopa.

***Caution****:*

* Gingko may raise blood pressure when taken with a thiazide diuretic such as hydrochlorothiazide.
* Caution should be used when taking Gingko with PD medications as some may have harmful interactions.
* In addition, it tends to have an anti-clotting effect. Therefore, if you are taking any other anti-clotting medication such as aspirin or warfarin (Coumadin), you should not take Ginkgo without consulting your health care provider.

Do not confuse gingko biloba with ginseng, as ginseng may be overstimulating in older adults.

**Milk Thistle (Silybum Marianum)**

* Many drugs and environmental toxins are processed through the liver.
* Milk thistle has been used to treat disorders of the liver and gallbladder for at least 2,000 years.
* Research shows that the silymarin in milk thistle helps protect the liver from many industrial toxins, such as carbon tetrachloride.
* There is also evidence that compounds from milk thistle seeds help protect the liver against damage from alcohol and hepatitis, and can even regenerate liver cells that have been damaged.
* Milk thistle helps improve liver function by helping to remove toxins from the body.
* In his book, *The Brain Wellness Plan,* neurologist Dr. Jay Lombard advises people with PD who take anti-parkinson’s drugs (metabolized through the liver) to add 300 mg of standardized milk thistle extract to their daily medication regime.
* Milk thistle is also available in capsules.

The compound appears to be safe, although more testing is needed to determine if there are any negative long-term effects. There are not currently any published studies of milk thistle in the treatment of PD.

**Vitamin B12**

* Vitamin B12 is an important factor in brain and nerve health, especially memory.
* Dietary Vitamin B12 is found in animal protein sources such as meat, eggs, fish and dairy products.
* As people age, they may develop difficulty absorbing B12 from the gut, even if the amount in their food sources is adequate.
* Oral supplements (usually 1000 mcg) may help, although persons with severe B12 absorption problems or deficiencies may require injections.
* Vegetarians may also develop a B12 deficiency.
* A chemical called homocysteine sometimes becomes elevated in persons with PD, often in conjunction with levodopa therapy.
* Elevation of homocysteine may be related to memory loss in some patients, although this is unproven.

Increasing B12 and folic acid will often result in a decrease in homocysteine levels, though it is not yet known whether this will improve memory.

**Folate (folic acid)**

* Folate (Vitamin B9) is another vitamin that is important for brain health and good memory.
* It is vital for the development of the nervous system and insuring adequate amounts during pregnancy can prevent certain types of birth defects.

Folic acid, along with B12 and possibly B6, can decrease levels of homocysteine, which may prevent strokes and heart attacks, and may help memory as well.