PARKINSON'S

Parkinson's dis-ease is a degenerative disorder of the central nervous system that often impairs the sufferer's motor skills, speech and other functions. It is characterized by muscle rigidity, tremors, a slowing of physical movement. The primary symptoms are the results of decreased stimulation of the motor cortex by the basal ganglia, normally caused by the INSUFFICIENT FORMATION AND ACTION OF DOPAMINE which is produced in the dopaminergic neurons of the brain. Secondary symptoms may include high level cognitive dysfunction and subtle language problems.

Although initial cause that starts Parkinson's is still unknown, there appears to be an increasing number of people with parkinson's that were involved in handling chemicals during their lifetime, and because there is a lack of dopamine in the brain which is the neurotransmitter that carries messages from one cell to another, perhaps the chemicals have interrupted or hampered the flow of energy in that area.

We believe total detoxification of liver, bowel, blood, kidneys etc. is a start to take the stress of the body to help it heal itself. Combine that with nutrition to assist regeneration of brain cells, and a powerful diet.

DIET:
75% or more raw foods.
Especially eat a lot of fruits (fruit sugars) and veggies.
Proteins: organic soybeans, organic eggs, cottage cheese, raw milk cheese, ricotta cheese, organic chicken or turkey, granola, oat flakes and rolled oats, walnuts, wild game, pork, fish
Include raw almonds, brazil nuts, pecans, pumpkin seeeds, sesame seeds
For cooked foods: lima beans, chickpeas, lentils
Absolutely not a scrap of processed sugars, however fruit sugars as in fresh fruits are good
Avoid pop, cigarette smoke, chemicals/preservatives.
Avoid cadmium and lead exposure.
If you are taking levodopa, avoid bananas, beef, fish, liver, oatmeal, peanuts, potatoes, whole grains which contain a lot of vitamin B6 and interfere with the potency of the drug, and also avoid supplements containing Vit. B6. There are also some amino acids contained in food proteins that can prevent the drug from reaching the brain so do not eat protein in the evening or at the same time you are taking the drug.

SUPPLEMENTS (we have checked off the ones your body needs)
___ 5,000 mg Vit. C in divided doses
___ 3,000 IU Vit. E
___ 200 mcg selenium
___ 1,500 mg Calcium and 750 mg Magnesium taken in the evening
___ Liquid iron to help stimulate production of dopa
___ 100 mg B Complex 2-3 times a day
___ Asura from Physica: contains BEE POLLEN extract to reduce LPS (lipopolysaccharides). Also is in Assura Brain; Black Cohosh which helps estrogen production to help maintain integrity of blood brain barrier; Flower pollen to reduce platelet aggregation; Zinc helps cogitive function; RNA to help modulate synaptic function; Royal jelly increases dopamine, anti-inflammatory, anti-oxidative; Aequorea Victoria binds calcium, helps neurons regulate.
___ High Quality multi vit/mineral supplement at breakfast
___ Macuna Pruriens from India, now in North America. This is derived from a plant belonging to the bean family and is being promoted to help Parkinsons, heart problems by lowering blood pressure and cholesterol, and help to ease anxiety and depression.
___ GABA
___ Grape seed oil
___ 2,000 mg or more Fatty acid such as Evening Primrose Oil, Borage Oil, Black Currant Seed oil
___ 1,200 mg Lecithin three times a day before meals.
___ 1 L Glutamic acid before meals
___ 100-500 mg L-Phenylalanine
___ Tyrosine (Dopamine needs this amino acid) (test for amount)
___ Raw brain glandular

___ Antioxidant supplement (eg. 3,000 mg Vit. C, 3000 IU Vit. E, Beta Carotene)
___ Gingko biloba
___ 'Green Drinks'
___ Chromium
___ Rhodiola
___ Thiamine (B1)
___ B6 if not taking L Dopa
Possibly:
___ Methionine ___ Phosphatidylserine ___ Arginine ___ Fish Oil ___ Willowbark
___ Guarana ___ Hydroxycitric acid ___ Conjugated linoleic acid ___ DMAE (dimethylaminoethanol)
___ Phenylalanine ___ Rhodiola ___ Vit. B5 ___ Gingko Biloba ___ Chromium ___ Arginine ___ Fish Oil
___ Lumina ___ Willowbark ___ Guarana ___ Hydroxycitric acid ___ Conjugated linoleic acid
___ Pineal Code (Physica) or Pineal lyph (Nutriwest) ___ Royal Jelly improves neuron growth in brain
___ Propolis (handled by Bee pollen) ___ N acetyl Cysteine ___ Magnesium if poor sleep or anxiety

EXERCISE:

Quiet relaxation, breathing exercises. For 1/2 hour each day set aside the time for quiet relaxation which can include non-work related reading, watching non-violent t.v. or playing a game such as chess.

Weight bearing exercise builds dopamine. Anaerobic exercise like weight lifting should be done 3 times a week. Use weights that involve exertion of effort to do 10-15 repetitions for each exercise, then increase weights when the repetitions become easy. Work with a personal trainer if you wish.

<u>Alternate Deep Breathing Exercise.</u>
These can slow your body down, provide feeling of peace which rests the brain while it is awake.
Sit quietly, take 5 slow deep breaths.
Exhale all your air completely, then seal off your right nostril with your thumb, completely filling your lungs through your left nostril.
Use your ring finger or pinkie to seal off the other nostril so that both are closed, hold your breath for 15 seconds. Release your right nostril and exhale.
Inhale again through the right nostril, seal off both nostrils, hold your breath 15 seconds. Release your left nostril and exhale.
Complete exercise 3 times, then relax, sit quietly and take 5 complete breaths through both nostrils.

HERBS (we have checked off the ones your body accepted)

___ Black cohosh
___ Burdock Root
___ Catnip
___ Cayenne
___ Dandelion Root
___ Ginger root
___ Goldenseal (don't take longer than 1 week at a time)
___ Gingko
___ Lemon balm
___ Milk Thistle
___ Passionflower
___ Siberian ginseng
___ Skullcap
___ Yarrow
___ Valerian root
___ Yellowdock

OTHER:

___ Chelation therapy to remove heavy metals
___ Homeopathy and herbs to remove heavy metals

Dopamine Neurotransmitter: Power
This neurotransmitter in the brain allows you to be powerful, reflexively fast, quick witted, sharp. You thrive on energy. When dopamine is balanced you are likely to be strong-willed, knowing what you want and how to get it. It gives self-confidence, helps you to be rational, more comfortable with facts and

figures than feelings and emotions. Ut helps you focus intently and persistently on the task at hand and take pride in achievement and allows you to function under stress.
Producing too much dopamine makes you overly intense, driven, impulsive.

Dopamine Deficiency
A simple change in dopamine can cause feelings of hostility and anger to increase. As stress levels go up, cardiac muscles strain and blood pressure increases also and eventually you become so wound up that you begin to burn up a second vital brain chemical, serotonin which leads to insomnia.
When serotonin levels fall, your carbohydrate cravings go up and you eat more, you gain weight and your kidneys begin to strain under the heavier workload. From this point, the downward spiral due to obesity takes over: your heart can become enlarged and your liver fatty, which can lead to stroke, heart attack, cancer.
BETA brain waves are created in the frontal lobes of the cerebrum from neurons that produce dopamine which controls your electrical voltage. The frontal lobes control movement and response to stimuli, they shape your personality.
Dopamine monitors metabolism. It works like a natural amphetamine and controls your energy, excitement about new ideas, and motivation. Dopamine controls bodily functions related to power, including blood pressure, metabolism, and digestion. Dopamine generates the electricity that controls voluntary movement, intelligence, abstract thought, setting goals, long term planning, personality.
Dopamine is characterized by its by-product ADRENALINE. When you lose your dopamine balance, the physical effects can include addictive disorders, obesity, severe fatigue, Parkinson's.
The neurotransmitter dopamine is an excitatory biochemical that, in ample supply, provides you with physical energy, mental energy, intense motivation, high sex drive, quick thinking/processing speed and an ability to fight off cravings. Lacking all or some of these abilities and behaviours reveals you most likely have a dopamine deficiency. Loners, depressed people and chronically introverted individuals all have been found to have dopamine deficiencies. Those who use dopamine agents such as caffeine or amphetamines are extroverting their brain and will behave in a way that's different from how their nature would express itself. With the help of these dopamine enhancers they will exhibit behavior similar to an individual who has a dopamine dominance.
Dopamine production determines your brain's power which is measured as voltage which is the intensity with which the brain responds to a stimulus and the effectiveness of the brain's ability to process the information that monitors your physical and mental health. Without proper voltage you literally slow down and develop a dull edge. As the power that drives your body's electrical output decreases, various symptoms and conditions can arise. The next chart lists the various conditions that can occur as your body's electrical power -- measured in microvolts, begins to fail.

Dopamine Progression of Medical Conditions:
10 normal to superior energy & concentration
9 blues, mild hypertension, fatigue, mild memory loss or cognitive deficit
8 insomnia, moderate hypertension, nicotine addiction, PMS, panic disorder, bipolar disorder
7 obesity, moderate obsessive-compulsive disorder, mild depression, dysrthymic disorder
6 moderate addiction, major depression, various personality disorders, ischemia, severe vascular disorders
5 toxic metal exposure, menopause, borderline personality disorder, chronic fatigue
4 multiple sclerosis, problems related to dislysis, chronic depression, violence, tumors, diabetes, bypass surgery
3 Parkinson's, cirrhosis of liver, multiple endocrine disorders
2 ADD, supranuclear palsy, Alzheimer's disease, disorders from abnormal brain structure
1 schizophrenia, cocaine abuse, HIV, hypoxia, other forms of oxygen deprivation, severe lead poisoning
0 coma, severe metabolic encephalopathy, global brain disease

Early warning signs:
Loss of energy, physically experiencing fatigue, mentally sluggish. It may take more time and effort to get things done. You might sleep a little longer but still wake up tired. You may drink more caffeine to get going. You may gain weight or avoid social contact or become more distant from significant others. You may medicate with booze in the evening to settle down, avoid sexual contact because you aren't interested.

Physical signs:
Anemia, balance problems, blood sugar instability, bone density loss, carbo binges, constipation, decreased desire for food, decreased physical strength and activity, diabetes, diarrhea, difficulty achieving orgasm, digestion problems, excessive sleep, food cravings, head and facial tremor, high blood

pressure, hyperglycemia, inability to gain or lose weight, joint pain, kidney problems, light-headedness, low sex drive, movement disorders, narcolepsy, nicotine cravings, obesity, parkinson's, slow or poor metabolism, slow or rigid movements, substance abuse, sugar or junk food cravings, tension, tremors, thyroid disorders, trouble swallowing.

Personality Issues:
Aggression, anger, carelessness, depression, fear of being observed, guilt or feelings of worthlessness/hopelessness, hedonistic behavior, inability to handle stress, isolating oneself from others, mood swings, procrastination, self-destructive thoughts.

Memory issues:
Distractibility, failure to listen and follow instructions, forgetfulness, lack of working memory, poor abstract thinking, slow processing speed

Attention issues:
ADD, decreased alertness, failure to finish tasks, hyperactivity, impulsive behavior, poor concentration.

When there is a dopamine imbalance the body naturally increases production of cortisol. Cortisol is made in the adrenal glands and regulates blood pressure and cardiovascular function as well as the body's use of proteins, carbos and fats. Cortisol is the backup adrenaline hormone, so when under stress your cortisol levels increase, your pulse quickens, you become red faced and blood pressure goes up.
As we age we lose the ability to produce hormones in the amounts and rates required for optimal health and when these droppoffs occur we must supplement our own hormone levels. When the hormone listed is necessary to enhance any nature, a dopamine nature will notice more readily when they require supplementation. Human growth hormone is available by injection and is expensive - a less expensive alternative is to augment existing HGH with amino acid products such as CREATINE and ARGININE. All the following natural hormones help increase voltage and provide energy to the brain.

DIET:
Diet alone can work early stages of deficiency. It is vital that cleansing of toxic chemicals and metals be also done. Weight gain is one of the hallmarks of dopamine deficiency. The more dopamine you produce, the faster your metabolism works. Select dopamine producing foods that increase metabolism and boost dopamine effect.
You need a steady supply of TYROSINE and PHENYLALANINE (2 amino acids that are precursors to dopamine). These are found in many protein rich foods. Round out a high protein meal with lots of additional fruits and veggies even if they don't appear on the lists. You can drink any nonalcoholic, sugar-free beverage you prefer, preferably noncarbonated so it won't produce gas.
You need to test to see if you are low on any other neurotransmitters. Low amounts of Caffeine can be good for dopamine deficient but if you are also Serotonin deficient, it can give you insomnia. If you are also GABA deficient caffeine might give you nervousness and palpitations and if you are Acetylcholine deficient, caffeine can contribute to jumpiness and the inability to think clearly.

PHENYLALANINE is used in the manufacturing of dopamine and norepinephrine. It improves learning and memory and is also used for fatigue and pain relief. Phenylalanine is an essential amino acid found in the brain and blood plasma that can convert in the body to tyrosine which is used to synthesize dopamine. Sources of phenylalanine: high protein foods such as meat, cottage cheese, wheat germ. See chart below. Increasing phenylalanine levels can help treat mild depression and fatigue. An adult needs 4-6 grams of phenylalanine a day through supplementation.

On the market, in supplemental form is DL-Phenylalanine and L-Phenylalanine. Those who use L Phenylalanine find it works for depression and alcoholism and they usually take 600-1200 mg three times a day. DL-Phenylalanine is often used for acute pain and depression at 600 mg every 2 hours for pain, and for chronic pain or depression, 600-1200 mg 3 times a day. DL-Phenylalanine is the best for helping the brain produce Dopamine.

An average adult ingests 4 grams of phenylalanine a day and optimally need up to 6 grams daily through supplementation.

Eat lots of foods high in Phenylalanine (4-6 grams daily):
Food - Amount - Content

Chicken	**6-8 oz**	**1.6 g**
Chocolate (dark)	**2-4 oz**	**.4g**
Cottage cheese	**1 cup**	**1.7g**
Duck	**6-8 oz**	**1.6g**
Egg	**1**	**.35g**
Granola	**1 cup**	**.65g**
Low fat, low salt cheese	**1 oz**	**.35g**
Oat flakes or rolled oats	**1 cup**	**.5g**
Pork	**6-8 oz**	**1.3g**
Ricotta	**1 cup**	**1.35g**
Soybeans	**6-8 oz**	**1.2g**
Turkey	**6-8 oz**	**1.6g**
Walnuts	**6-8 oz**	**1.4g**
Wheat germ	**1 cup**	**1.35g**
Whole milk	**1 cup**	**.4g**
Wild game	**6-8 oz**	**2.6g**
Yogurt (plain, nonfat)	**1 cup**	**.4g**

TYROSINE - Builds Dopamine
When phenylalanine is converted to tyrosine, the amino acid increases resistance to stress and acts as one of the body's natural pain relievers. Tyrosine is used by the brain to synthesize and produce dopamine and norepinephrine, has been shown to increase concentration and decrease symptoms of anxiety and depression - it is best used in conjunction with Vitamin B6. Norepinephrine is chemically related to adrenaline. Tyrosine can give dopamine-deficient people the increased energy they are lacking. Foods high in tyrosine: chicken, duck, cottage, cheese, wheat germ. Tyrosine dose of 6 grams a day has shown to decrease symptoms of depression.
Tyrosine creates so much raw energy that in large doses (more than 20 grams daily), it can reduce your appetite. However low doses have a less consistent effect. The minimum daily tyrosine requirement is about 1000 mg for an adult.

Eat lots of foods high in Tyrosine:

**Food - **	**Amount**	**Content**
Chicken	**6-8 oz**	**.4g**
Chocolate (dark)	**1 cup**	**.4g**
Cottage cheese	**1 cup**	**1.7g**
Duck	**6-8 oz**	**.6g**
Egg	**1**	**.25g**
Granola	**1 cup**	**.4g**
Oat flakes or rolled oats	**1 cup**	**.35g**
Pork	**6-8 oz**	**1.2g**
Ricotta	**1 cup**	**1.5g**
Turkey	**6-8 oz**	**.7g**
Wheat germ	**1 cup**	**1.0g**
Whole milk	**1 cup**	**.4g**
Wild game	**6-8 oz**	**1.5g**
Yogurt (plain, nonfat)	**1 cup**	**.4g**

The following menus span 3 days and give an idea of how to use dopamine via your diet. How often you repeat this depends on your deficiency. For a minor deficiency, follow the 3 day course once a month. For moderate deficiency, follow the 3 day course once a week. Extreme deficiency requires at least 6 days a week. The main component is high protein, low fat, foods rich in phenylalanine and tyrosine.

You must eliminate processed sugars and baked goods made with refined white flour, reduce caffeinated beverages to no more than 2 cups a day. Your body will get its energy from the amino acids instead of sugar and caffeine. For some dopamine related physical illnesses you might want to eliminate foods high in saturated fat if you need to reduce cholesterol and crab restriction can help lose weight and reduce fatigue.

Sample Menus to give you an idea how to incorporate these foods into your diet:

Day 1
Breakfast: 2 soft boiled or poached eggs with 4 oz spinach. Add some seasonings for flavor. Finish with cup of iced green tea with lemon

Lunch: 4-6 oz sardines with 6 oz soybeans, almonds, cranberries. Add 1-2 Tbsp olive oil-balsamic vinegar dressing and some seasonings. Green Salad. Ice tea with lemon.

Dinner: 6-8 oz lamb seasoned with herbs. 6 oz Brown rice. 6 ox mixed grilled asparagus, carrots, onions. 2 oz berries mixed in 1/2 cup plain yogurt. Cranberry tea.

Day 2
Breakfast: 2 egg omelet with 2 oz roasted turkey, fresh radishes. Coffee with cinnamon.

Lunch: 6 oz light tuna mixed with olive oil to taste on 1 slice whole wheat bread with lettuce, tomatoes, onions. Green Salad. 6 oz freshly squeezed juice.

Dinner: 6 oz salad of beets, apples with 2 oz goat cheese and balsamic vinegar (no olive oil). One grilled cajun-spiced chicken breast and 4 oz mixed steamed snow peas, red beans, corn. Ginger tea.

Day 3
Breakfast: 2 oz sardines with dark green lettuce, 1 cup plain yogurt with 2 oz mixed berries, almonds, walnuts. Herb Tea.

Lunch: 6 oz baked salmon on 6 oz garden salad with olive oil, vinegar, few whole wheat or rice crackers. Green tea.

Dinner: 4-6 oz lean steak or veal with 4 oz steamed green beans, raw vegetable salad. toasted almonds, cranberries. Oolong tea or herb tea.

Snack ideas:
2 oz cottage cheese with grapes
1/2 cup plain yogurt with blueberries.
1 soft boiled egg with some baby carrots
1 green apple with 2 Tbsp almonds.

Supplements you can take that boost dopamine for brain energy:

	Minor deficit	Moderate	Severe
Phenylalanine	500mg	1000mg	1,000-2,000 mg
Tyrosine	500mg	1000mg	1,000-2,000 mg
Methionine	250mg	500mg	1,000mg
Rhodiola	50mg	100mg	200mg
Pyridoxine (B6)	5 mg	10mg	50mg
B complex	25 mg	50mg	100mg
Phosphatidylserine	50mg	100mg	200mg
Gingko biloba	50mg	75 mg	100mg

Specific Problem Helpers:
Diminished sex drive:
15-20 mg Yohimbine
Fatigue:
Chromium (men 35 mcg/ women 25 mcg).
200-2,000 mg Guarana
Impotence:
1,000-10,000 mg Arginine (similar to viagra)
Inflammation:
1,000-3,000 fish oil;
1,200-1,500 mg coated aspirin for short period of time;
200-1,000 mg willow bark

Narcolepsy:
1,000-2,000 guarana
Substance abuse:
1.5mg men/1.1mg women Thiamine (Vit B1).
Cocaine/Amphetamines:
Tyrosine supplement
Treatment resistant depression:
50-750 mg Rhodiola
Weight loss:
500-1,500 mg Hydroxycitric acid (HCA)
2,000-3,000 mg Conjugated linoleic acid (CLA)

Chemical Toxins:
Toxins most strongly suspected are pesticides and metals such as manganese or iron, especially those that generate reactive oxygen species and/or bind to neuromelanin. A study showed those exposed to pesticides at a 70% higher incidence of Parkinson's than those not exposed.

PCB's, Paraquat (a herbicide) in combination with Maneb (a fungicide), Rotenone (an insecticide) ans well as other pesticides are strongly suspect.

We have found those who handle chemicals (farmer's, oil well workers, hairdressers, dry cleaners) are the ones we see in our clinic the most.

Exposure to lead from old paint, leaking batteries or solder has been proven to reduce the brain's dopamine supply. Avoid contamination. If you have lead contamination use 'plumbum' homeopathic to remove and 'MetalX'.

Cadmium from cigarette smoke decreases dopamine. Quit if you are a smoker. Use homeopathics to remove cadmium toxicity. Many smokers break addiction with dopamine nutrient supplementation. If you don't smoke, avoid being near those that do.

Drug Treatment (from Wikepedia Encylopedia)
The most widely used form of treatment is L-dopa which is transformed into dopamine in the dopaminergic neurons by L-aromatic amino acid decarboxylase. However only 1 - 5% of L-Dopa enters the dopaminergic neurons and the remaining is often metabolised to dopamine elsewhere which causes a wide variety of side effects. Due to feedback inhibition, L-dopa results in a reduction of the endogenous formation of L-dopa and so eventually becomes counterproductive. Carbidop and benserazide are dopa decarboxylase inhibitors which help prevent the metabolism of L-dopa before it reaches the dopaminergic neurons and are generally given as combination preparations of carbidopa/levodopa (co-careldopa) (eg. Sinemt, parcopa) and benserazide/levodopa (co-beneldopa) (eg. Madopar). There are also controlled release versions of Sinemet and Madopar that spread out the effect of the L-dopa. Duyodopa is a combination of levodopa and carbidopa, dispersed as a viscous gel. Using a patient-operated portable pump, the drug is continuously delivered via a tube directly into he upper small intestine where it is rapidly absorbed. There is also Stalevo (Carbidopa, Levodopa and Entacapone).
Tolacpone inhibits the COMT enzyme thereby prolonging the effects of L-dopa, and so has been used to complement L-dopa. However, due to its possible side effects such as liver failure, it's limited in its availability. A simiar drug, entacapone has not been showhn to cause significant alterations of liver function and maintains adequate inhibition of COMT over time.