#### April 2009

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### Key Points

- Parkinson's disease is devastating to friends and family alike
- There has been an explosion of neurodegenerative diseases like Parkinson's
- Find out what causes Parkinson's — and what to do to help prevent it
- Environmental factors play key roles
- Drug abusers unwittingly discovered how to bring on advanced stages of Parkinson's
- Immunoexcitotoxicity and Parkinson's

#### PLUS

 Find out what key supplements may help you stave off this affliction

#### ASK DR. BLAYLOCK

 Do cell phones damage your brain?; a natural way to treat social anxiety

## Parkinson's Disease – You *Can* Fight Back

Years ago, my parents came to visit my wife and me at our home in Charleston, S.C. Their visits were something we always looked forward to. I had just started my neurosurgical residency and was excited to spend time away from medicine and relax with my family.

As we sat around the dinner table, laughing and catching up on all the news from back home, I noticed that my father had a bit of a problem with drooling — nothing dramatic, but it was out of the ordinary. Later I noticed that his walking was different.

Slowly I came to the realization that he was showing early signs of Parkinson's disease. I hesitated to bring it up, since I didn't want to scare him, and I wanted more time to be sure. Soon, however, the diagnosis was obvious.

It was the 1970s and a new treatment for Parkinson's disease called L-dopa had just appeared. It was hailed as a cure for the problem, and many dramatic successes were being reported. At the time I thought his disease was no big deal, and he would be fine. That was not to be.

Over the following 10 years I watched helplessly as my father's condition went from bad to worse. I was very close to my dad, and to see him go from a robust, energetic man of great humor to a weak, emaciated shadow of his former self was devastating.

#### Nowhere to Turn

I tried everything I could think of, and all of the remedies I tried, of course, were traditional medical treatments. None seemed to help. I even subscribed to a neuropharmacology journal so I would have access to the latest drug treatments for Parkinson's disease.

To appreciate the dramatic effect of this disease you have to realize that my dad was a heavy-weight boxing champion when he attended Louisiana State University in the 1930s, and he was on the varsity track and field team as well.

My dad was a big man, standing some 6 feet 7 inches tall, and he was powerfully built. He always emphasized exercise and a good diet, and he took an assortment of vitamins.

As I look back, however, I realize most of the vitamins he took were poorly compounded.

Towards the end, he was so weak that he could barely get out of a chair, and he began to suffer from all of the complications associated with the medical treatment of this horrifying condition.

After a 15-year battle, he died in his home, a broken and very sick man.

I was devastated, not just from having to witness

his slow deterioration and suffering, but because I had been unable to do anything for him.

It was after his death that I came upon the excitotoxin issue that I write about so often in my newsletters.

I learned that excitotoxicity is the cause of Parkinson's disease as well as other neurodegenerative diseases, and I've made it my personal mission to inform and educate others.

#### Tragedy Strikes Again

Within a few years of my father's death, my mother began to show definite signs of the disease as well. Again I tried to deny it, but just as in my father's case, soon it too was obvious.

My mother, having cared for my dad through all the years of his suffering, was terrified.

I lived the nightmare all over again.

I tried to help her with my newly-discovered

information on the natural treatments of Parkinson's disease, but she was so depressed over the death of Dad that soon she just gave up.

Within 10 years she also died of complications associated with her illness.

This newsletter is, in part, a legacy of their deaths. It's why I write about major things I have learned about the prevention and treatment of this devastating neurological disorder so that others will not have to suffer as my family did.

## A recent study found that the incidence of

An Explosion of

neurodegenerative diseases, such as Alzheimer's disease, Parkinson's disease, and Lou Gehrig's disease, has increased in far greater numbers than previously suspected. What is even more frightening

> is that these devastating neurological disorders are occurring at much earlier ages than previously seen. Some victims are in their 20s and 30s.

While Alzheimer's disease is the No. 1 neurodegenerative disease, Parkinson's is a close second. What the medical profession cannot seem to get in its collective head is that for every fullblown incidence there are hundreds of cases that are less severe but that interfere with one's enjoyment of life.

We use such benign terms as "age-related cognitive decline" to describe conditions that are just short of full-blown Alzheimer's disease. And we say that old people who walk slowly, have balance problems, and develop minor tremors are just getting on in years.

Most of these diseases are age related, meaning

that their incidence is much higher as we age, especially after age 50. For example, the incidence of Alzheimer's disease goes from 15 percent at age 70 to almost 50 percent in people over age 80. The same is true for Parkinson's disease.

Today there are about 1 million people suffering from this horrible disease, and 50,000 new cases are diagnosed each year.

Not only is the cost in human suffering enormous, including the devastating effects on families, but

#### Page 2

#### Facts About Parkinson's Disease

Here are some little-known facts about this devastating disease.

- First described in 1817 by James Parkinson.
- Average age of onset is 57 years.
- Can occur as early as age 30.
- Two basic forms: Early onset begins before the age of 50, Late onset begins after age 50.
- While most damage occurs in the substantia nigra of the midbrain, there can be extensive damage to other areas of the brain including neurons of the striatum and locus ceruleous.
- Damage can also occur in the peripheral nervous system, autonomic nervous system, and in the nerves of the heart.
- Defects in the body's ability to detoxify harmful elements are common.
- Mitochondria have low energy output and high free radical generation.
- A full 35 percent of patients will eventually develop dementia.

it also costs hundreds of millions of dollars in

healthcare costs and lost productivity.

Until recently, medical scientists had no idea what caused this neurological disorder, but they entertained theories involving genetics and aging itself. Slowly, these scientists have discovered that like so many diseases afflicting modern man, Parkinson's is an inflammatory disease.

Many experts have noted a link between cardiovascular disease (atherosclerosis) and a number of age-related neurological disorders. And, as in cardiovascular disease, Parkinson's disease and Alzheimer's disease are linked to other inflammatory conditions:

- Diabetes
- Autoimmune diseases
- Obesity
- Consumption of omega-6 fats
- Trauma
- Exposure to certain toxic metals
- Infections

They have discovered that regardless of the event or condition that triggers the disease, the damage is caused by intense activation of the brain's immune cells, called microglia, that destroy parts of the brain (such as the striatum).

If we look at all the known links to Parkinson's disease, such as infections, trauma, obesity, toxic metal exposure and pesticides/herbicide exposure — we find that they all intensely activate the brain's microglia and do so for very long periods.

One of the strongest links to Parkinson's disease is exposure to pesticides and herbicides, especially paraquat, pyridaben, fenazaquin, dieldrin and rotenone. When I examined my parents' exposures, two things stood out: One year my dad decided to treat our house with pesticide bombs, which burn like a candle and fill the house with toxic fumes. He set a number of these bombs and left them while we went on vacation, thinking the poison would be cleared by the time we returned in two weeks.

The second incidence was perpetrated by the city. We lived across the street from a bayou, and the city had the bright idea of killing off pest fish called shad. They poisoned the bayou with hundreds of gallons of a pesticide called rotenone, commonly used to kill fish. Along with the hundreds of thousands of shad killed, a stench blanketed our house for weeks. Rotenone has been shown to produce Parkinson's disease in a number of animals, and is suspected of being a major cause of human Parkinson's disease. In fact, it is now accepted that exposure to pesticides and herbicides is the leading environmental cause of the disease.

We are exposed to enormous amounts of these dangerous chemicals every day as we spray our homes, play on contaminated golf courses and work in buildings treated by pesticide services on a regular basis. Rotenone is one of the most common pesticide ingredients.

Recent studies also have shown that it is not even necessary to be exposed to normally toxic levels of these poisons to be affected. For example, one study found that if an animal was exposed to a single pesticide in a dose so low that it didn't cause any brain damage (called a subtoxic dose) and then exposed to another pesticide sometime in the future, also in a subtoxic dose, the two together cause extensive damage to the part of the brain normally damaged in Parkinson's disease.

We call this the multiplying of toxicity "synergism." People are exposed to hundreds of types of pesticides, herbicides and similar chemicals, many of which have been shown to produce Parkinson's disease in animals and possibly humans. We know that farmers, exposed to numerous, high concentrations of pesticides and herbicides, have a much higher incidence of Parkinson's and Alzheimer's disease than less-exposed populations.

#### Some People Are Especially Sensitive

Years ago I read an article in the journal Neurology (Neurology 1999; 52: 1467-71) that really alerted me to the dangers of pesticide exposure. It reported five cases of people who developed an explosive onset of Parkinson's disease

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This month's password is: omega (Please remember to use lowercase letters.)

symptoms after they were exposed to a common household pesticide.

The most interesting case was a middle-aged woman who sprayed her home thoroughly with a household bug spray to rid it of pests. Within a day or two she developed full-blown, advanced Parkinson's disease. She was hospitalized and treated by several neurologists, who were all puzzled by the explosive onset of the disease since it usually takes years to reach that stage.

After several weeks in the hospital she recovered and returned home. Once in her house all of her symptoms returned and she was once again hospitalized. At that point her neurologists decided

that her disease was caused by exposure to the bug spray. While recovering, her family scrubbed every inch of the house to remove the pesticide. Yet, when she returned, her symptoms developed once again.

She sold her house and moved to a new untreated home and seemed to be doing well. That is, until she asked her daughter to retrieve a blouse that she had left in the original house. Upon wearing the blouse, all of her Parkinson's symptoms returned. It was determined that the minute

amount of pesticide clinging to her blouse was enough to trigger her symptoms.

#### Her husband was not affected by the pesticide at all. Interestingly, it is known that certain people with Parkinson's disease have weak detoxification enzymes in their neurons and liver. What this means is that when they are exposed to toxins, such as the pesticides, the poison is not detoxified and can then enter the brain to do its damage.

One of the consistent findings in Parkinson's disease is that victims have very low levels of glutathione in their cells, especially in the areas of the brain most affected. Just how does glutathione affect your body?

Glutathione plays a major role in protecting all cells, especially brain cells. This miracle molecule

is found in its highest concentrations in the mitochondria of the neuron, which is where 95 percent of free radicals are produced.

Some suspect that people with low glutathione levels are at the greatest risk of developing Parkinson's, and this may explain why the woman's husband in the story was not affected by the pesticides while she suffered devastating symptoms.

Glutathione is a major protector against mercury toxicity. This means if you have low glutathione levels, you are at a much greater risk of mercury damage to your brain and of developing diseases such as Parkinson's. Studies have shown that not only are glutathione levels lower in people who have

> Parkinson's disease, but levels fall progressively as the disease worsens.

> Many factors can lower brain glutathione:

- Brain injury
- Strokes
- Diabetes
- Autoimmune diseases
- Environmental toxins
- Infections

All of these factors increase free radicals and lipid peroxidation products in the brain. Ironically, most doctors, even experts in brain diseases, forget that one of the leading causes for low brain

glutathione is an elevation of brain glutamate levels.

A special metabolic system in the brain's neurons requires a constant low level of glutamate outside the neuron in order to manufacture glutathione.

When glutamate levels become too high, though, glutamate not only depletes glutathione, it also increases the production of free radical and lipid peroxidation products and brain inflammation.

Studies have shown an elevation in brain glutamate with Parkinson's disease.

A further link to high glutamate brain levels is the finding that glutamate itself can activate microglia. When activated, the microglia excrete two forms of excitotoxins — more glutamate and quinolinic acid. So we see a vicious cycle of brain inflammation and excitotoxicity, which is being driven by a number

Parkinson's Disease

Symptoms

Learn to spot the symptoms.

· Facial expressions may become fixed,

Rigidity of limbs with cog wheeling

or lead-pipe rigidity, feet stick to

Postural instability, with a stooped

and falling forward when walking

· Pill-rolling tremor of hands, which

usually starts in one hand

cessation of smiling

the floor

appearance

Slow movement (bradykinesia)

#### Page 4

of brain toxins and events. Over time, the brain's other antioxidants are depleted and the damage accelerates dramatically, ending in severe disability and death.

Modern medical treatments do not address any of these issues. Instead, they merely try to replace lost neurotransmitters.

These treatments only aggravate the situation and cause even more rapid deterioration.

#### Drug Addicts 'Create' Parkinson's

In the 1970s, a group of industrious drug addicts in northern California decided they could make a lot of money by creating heroin in a home-based lab. Unfortunately, they didn't pay a lot of attention in chemistry class and accidentally created a compound known as MPTP.

When they tried it on themselves they all developed advanced Parkinson's disease — a condition now called the "frozen addict."

MPTP is so efficient in producing the disorder that it is used in experimental studies of the disease. Interestingly, MPTP intensely activates microglia (the brain's immune cells) in the area of the brain associated with the disease (the midbrain). It causes intense inflammation of the affected part of the brain, just as we see with pesticides, herbicides, trauma, toxic metals, and infections.

MPTP also depresses mitochondrial function and increases the production of free radicals and lipid peroxidation products in the brain, something always seen in neurodegenerative diseases.

When these unfortunate drug addicts were followed over decades with repeated PET scans, researchers demonstrated that they deteriorated faster than most Parkinson's patients. But on autopsy, they had the very same pathological finding in their midbrain:

- Intense microglial activity
- High levels of inflammatory cytokines
- Widespread destruction of cells in the substantia nigra

What makes this incident so important is that even though the addicts had only a brief exposure to the MPTP toxin, their brains continued to deteriorate for decades. It shows that even a single exposure to some toxins can trigger prolonged microglial activity. We also see this phenomenon with pesticides and vaccinations.

#### Immunoexcitotoxicity and Parkinson's Disease

Over the past decade I have been studying the interaction between inflammatory immune overactivity and excitotoxicity. Both are known to play important roles in all neurodegenerative diseases, especially Parkinson's disease and Alzheimer's dementia.

I have coined the term immunoexcitotoxicity to describe this process. Normally, these immune cells, the microglia, are in a resting state — they are snoozing. But, when the brain is at risk of being attacked, these sleeping microglia spring to life, travel around the brain and, unfortunately, create all kinds of havoc. The following are some of the factors that can create this problem:

- Infections
- Vaccinations
- Trauma
- Exposure to toxic metals or pesticides and herbicides
- Stroke

Being immune cells, they can secrete large

Over the past decade I have been studying the interaction between inflammatory immune overactivity and excitotoxicity. Both are known to play important roles in all neurodegenerative diseases, especially Parkinson's disease and Alzheimer's dementia. amounts of inflammatory cytokines, which damage brain cells (neurons), brain cell connections called dendrites and axons, and the special connections called synapses. In most brain diseases, at least early on, it is these connections that are most damaged and not the cells themselves. This is good, because it means that

if the correct steps are taken early enough, more serious damage can be averted. In many cases, a person can have dramatic improvements.

Inflammation is a common trigger for excitotoxicity, and the two appear to interact in all neurodegenerative diseases. Through a series of complex interactions, inflammatory immune cytokines can increase the brain's sensitivity to excitotoxicity, hence the term immunoexcitotoxicity. The big question is, What is inflaming the brain?

Some studies have shown an increase in the incidence of viral or bacterial infections of the brain

in Parkinson's disease and Alzheimer's disease. Many have shown an accumulation of mercury, aluminum, copper, zinc, manganese, or lead in both conditions. Most of us are exposed to a great number of these toxins.

It is interesting to note that the highest concentration of microglia in the brain occurs in the frontal lobes and limbic system (Alzheimer's dementia) and midbrain (Parkinson's disease), which explains why these two diseases are so common and why other parts of the brain are affected only late in these diseases.

In many cases there is an overlap of the neurodegenerative

#### **Traditional Treatments**

Traditional treatments include a host of drugs and surgeries.

- L-dopa mainstay treatment (most patients will get worse after two to five years, and it appears to speed deterioration)
- Carbidopa a form of L-dopa that increases brain levels of the medication
- Drugs that inhibit MAO-B (an enzyme)
- Drugs that inhibit COMT (an enzyme)
- Drugs that mimic dopamine
- Drugs that block glutamate receptors
- Anticholinergic drugs (nerve impulse inhibitors)
- Surgical treatments
- Stereotaxic unilateral pallidotomy (destroying a small portion of the brain that has been damaged by Parkinson's)
- Stereotaxic ablation of subthalamic nucleus (burning or freezing a small portion of the brain damaged by Parkinson's)
- Deep-brain electrical stimulation
- Stem cell placement in substantia nigra

sensitivity to the toxin so much that it destroyed the same area of the brain that is destroyed in Parkinson's disease. This has also been shown with mercury.

Worse still, studies have shown that if you vaccinate an animal while it is pregnant, the offspring will have fewer neurons in the area of the brain affected by Parkinson's. If the offspring is then exposed to low doses of rotenone as an adult, the damage will be much greater to this region of the brain.

This means that vaccinating pregnant women with the flu vaccine may very well put their babies at a

diseases, so that over time you will see Parkinson's symptoms and signs in Alzheimer's patients and vice versa. Sometimes we see a person who has signs and symptoms of all three of the major neurodegenerative diseases — Alzheimer's, Parkinson's and ALS (Lou Gehrig's disease). In fact, we know that a single brain toxin can produce all three diseases, depending on the dose and timing of exposure.

#### A Hidden Secret About Vaccines

Another frightening finding is that vaccinations can dramatically increase one's risk of developing a devastating neurodegenerative disease. This was dramatically shown in a study in which animals known to be sensitive to MPTP were exposed to doses that were so low that they had no toxic effect (a subtoxic dose).

The animals were then vaccinated, followed by exposure to the same subtoxic dose of MPTP. Researchers found that the vaccination increased much greater risk of developing Parkinson's disease when they grow up.

With states now mandating forced vaccinations and encouraging pregnant women to get the flu vaccine, one wonders if this is a disaster in the making. Giving the elderly more vaccines is also of great concern, since this can set the stage for chronic brain inflammation in them as well.

Studies have shown that a single vaccination can activate destructive microglial activation that can last years, just as we saw with pesticide and drug exposures.

#### 'An Ounce of Prevention'

"An ounce of prevention," as Benjamin Franklin informed us, "is worth a pound of cure." He's right about prevention — but you would never have known it from judging standard medical procedures.

Modern medicine just cannot come to grips with the fact that one should address the causes of diseases and not just treat symptoms. Hypertension

#### April 2009

#### The Blaylock Wellness Report

Page 7

is not caused by a deficiency in antihypertensive drugs, and heart attacks are not caused by a deficiency in statin drugs. Likewise, Parkinson's disease is not caused by a deficiency in dopamine In fact, it is ironic that the medical profession ignored, until recently, the great number of other neurotransmitters and brain systems that are affected.

What we have learned with virtually all neurological diseases (and many other diseases as well) is that the disease begins years and possibly decades before the first symptom appears. In the case of the neurodegenerative diseases, inflammation appears to be the trigger.

Research shows that the activation of microglia

is one of the earliest events, leaving a silent smoldering cauldron of inflammation within the brain. This inflammation triggers excitotoxicity.

It has been shown that no symptom of Parkinson's disease is visible until almost 50 percent of the neurons in the substantia nigra have been killed. By that time, even more connections have been lost. Many patients are not diagnosed for many years and have been bounced around from a health program. This also applies to preventing Parkinson's disease.

Some foods should be eaten only in limited amounts. For example, chocolate is high in copper, a metal associated with a high risk of Parkinson's disease. Soy foods are very high in manganese and fluoride, and some pediatricians are quite concerned with the high amounts of these brain toxins some infants get through soy formulas.

Most important is to avoid eating a high protein diet, especially people who are middle-aged and older. Studies have shown that Parkinson's patients do much better on a low protein diet (50 grams for males and 40 grams for females). This is not related

#### Complications of Parkinson's Treatments

The medical community uses powerful drugs and techniques to treat Parkinson's patients, and the effects can be disturbing.

- Dyskinesias uncontrolled, writhing movements, constantly moving
- Sleep disturbances in 70 percent
- Nausea and vomiting
- Low blood pressure (hypotension)
- Hallucinations
- On/off phenomenon the "on" portion is near normal movement and the "off" portion is a freezing of all movement

to medications, such as L-dopa, but may be related to the high iron content of red meats. Parkinson's patients have higher iron levels than normal, and the levels of iron in the brain rise as the disease progresses. Iron is a powerful generator of free radicals.

You should eat at least five to seven servings of fruits and vegetables, especially nutrient-dense vegetables, to gain the greatest protection.

doctor to doctor. When they are finally diagnosed, 70 percent or more of the neurons are dead and the remainder are quite sick.

This leaves us little to work with, but even these cases are not hopeless. Some dramatic improvements are being seen using special techniques.

#### Take Steps to Prevent Parkinson's

There are some important steps you can take to help minimize your chances of getting this devastating disease.

Eat a healthy diet. As I stated in my last two newsletters, diet is the most important aspect of Wash all produce to remove pesticide residues. These are particularly important:

- Blueberries
- Raspberries
- Blackberries
- Spinach

All have been shown to enhance brain protection and, especially, brain healing.

Parkinson's patients usually eat diets higher in calories and especially higher in sugars, high-glycemic carbohydrates, and in animal fats and omega-6 fats. Animal fats are high in pesticide residues, and omega-6 fats increase brain inflammation.

Please note that this advice is generic and not specific to any individual. You should consult with your doctor before undertaking any medical or nutritional course of action.

Drink only filtered or distilled water, with magnesium added. Fluoride in all its forms (fluoridated water, toothpaste, fluoride treatments, etc.) should be avoided at all costs. If you have dental amalgam fillings, they should be removed by a dentist trained in their safe removal. You also should avoid eating fish high in mercury.

Remember — many fish also are high in pesticide and herbicide residues.

Increase your antioxidant intake. Much of the damage done by immunoexcitotoxicity is through massive free-radical generation and lipid peroxidation. Antioxidants, as I have emphasized many times, always work together. Orthodox physicians just can't seem to understand this. They treat antioxidants as drugs, and that is why so many of their studies fail.

Here are the major supplements known to reduce inflammation, increase brain energy, improve brain blood flow, reduce free radical damage, and promote repair of the damaged brain:

• A well-compounded multivitamin/mineral. I believe one of the best is Extend Core made by Vitamin Research Products. (Get it at www.vrp. com.) It does not contain iron and it comes in a powdered form. The dose is one capsule three times a day with meals.

• Natural vitamin E and tocotrienol. These are both vitamin E products, but they are in a pure form and contain all of the subtypes of vitamin E. The best brand is Unique-E (www.vitacost.com). The dose is one capsule of each twice a day.

• Vitamin C (as magnesium or calcium ascorbate). In addition to being a powerful antioxidant, Vitamin C also increases brain energy and stimulates the generation of neurotransmitters. The dose is 1,000 milligrams three times a day on an empty stomach. Taking it with food dramatically increases iron absorption, something most people want to avoid. I recommend buffered vitamin C capsules. (Get the Pure Encapsulations brand.)

• Grape pip. This is from the seed of the grape (the pip) and contains anthrocyanadins, which inhibit free-radical damage and also strengthen blood vessels and suppress microglial activation.

• White tea extract. White and green teas contain a number of highly protective brain chemicals called catechins. The most important is epigallocatechin gallate (EGCG). White tea extract has a higher concentration of these protective chemicals and is free of fluoride and aluminum. The dose is 100 milligrams three times a day.

• CoQ10 (ubiquinol). This natural compound is used by all cells to produce energy. Levels are particularly low in the brains of Parkinson's disease victims. This form of CoQ10 (the reduced form) has a higher potency than most brands and enters the brain in higher concentrations. The dose is 50 milligrams to 100 milligrams a day. Life Extension Foundation has an excellent brand (www.lef.org).

• Phosphatidylserine. This is a brain phospholipid that has been shown to energize the brain and protect it against excitotoxic damage. The dose is 100 milligrams a day.

• Acetyl-L-carnitine. This compound is found in the brain and has been shown to improve neuron function, protect neurons against excitotoxicity,

Recent studies have shown that estrogen replacement (bioidentical hormones) can protect women against Parkinson's disease following menopause. and boost dopamine neurotransmission. It also increases the level of braingrowth factors, which promote brain repair. L-carnitine, which is cheaper, also protects the brain and should be used instead of acetyl-L-carnitine by those who already have the disease.

• Nicotinamide. This is

the functional form of niacin and plays a major role in the production of energy in the brain and DNA repair. It has been shown to significantly protect animals from Parkinson's disease caused by MPTP. This vitamin has also been found to improve recovery from strokes and head injuries.

One way nicotinamide (also called niacinamide) protects brain cells is by increasing SIRT1, a protective cell-signaling molecule. The dose is 500 milligrams three times a day. (You can get it at www.vitacost.com.)

• Bioidentical hormones. Recent studies have shown that estrogen replacement (bioidentical hormones) can protect women against Parkinson's disease following menopause. Many studies have shown that estrogen (estriol) is protective of brain cells, even against excitotoxicity and inflammation.

• Hesperidin. This flavonoid is found in many fruits, such as oranges and grapefruits. Studies have shown that it corrects insulin resistance (Type 2

#### April 2009

#### The Blaylock Wellness Report

diabetes) and offers very powerful protection against a nasty free radical called peroxynitrite. This radical is found in very high concentrations in the brains of people with Parkinson's disease and Alzheimer's disease. The dose is 500 milligrams three times a day. (You can find it at www.vitacost.com.)

• Curcumin and quercetin. These two flavonoids also have been shown to reduce the damage associated with Parkinson's disease and Alzheimer's disease. Both are very powerful anti-inflammatories and reduce microglial activation and excitotoxicity. (The dose is 500 milligrams of each, dissolved in

extra virgin olive oil and taken three times a day with meals.) I would reserve this for those at greatest risk and those who already have the disease. A diet rich in fruits and vegetables supplies a great number of flavonoids.

• DHA. This is a component of fish oils, and it is found in a pure state from algae. The brain uses large amounts

of DHA to function and also for protection. Of the two components of fish oils, DHA is the most important. It protects against excitotoxicity, reduces inflammation, and calms microglia.

In addition, DHA repairs the injured nervous system. The dose is 1,000 milligrams a day. (The best brand is Neuromins, which can be found at www.vitacost.com.)

• Silymarin. This component of the plant milk thistle, is commonly used to protect and heal the liver. Since many who have Parkinson's also suffer from detoxification problems, they should take this supplement regularly. It has also been shown to significantly calm microglia, even in small doses. The dose is 200 milligrams twice a day.

• Magnesium Citrate/Malate. Over 75 percent of people are magnesium deficient. Magnesium plays a major role in protecting the brain from inflammation by raising glutathione levels, reducing excitotoxic damage and improving blood flow to the brain. The dose is 500 milligrams twice a day. Jigsaw Health makes a time-released form that is excellent. There are also capsules that are rapidly absorbed. (Try the Pure Encapsulations brand.) • N-Acetyl-L-Cysteine (NAC). This supplement has been shown to significantly increase brain levels of glutathione, which is very low in people prone to Parkinson's disease. The dose is 500 milligrams twice a day.

• R-Lipoic Acid. This powerful antioxidant, which is found in all cells, raises glutathione levels and increases brain energy levels. It can cause a significant drop in blood sugar, so it should always be taken with a full meal. The dose is 25 milligrams twice a day.

• Melatonin. Most people associate this

#### Perlmutter Treatment of Parkinson's Disease

Neurologist David Perlmutter has developed a treatment of Parkinson's disease in which he infuses glutathione intravenously (by an IV). A number of his patients with early and even more advanced disease have shown significant improvement. For more information, go to www.perlhealth.com/about.php. supplement with sleep, but it is one of the brain's most important protective antioxidants. It also dramatically increases the other protective antioxidant enzymes in the brain and has been shown to protect against MPTP-induced Parkinson's in animals. As we age our brain level of melatonin falls. The dose varies from

1 milligram to 15 milligrams to be taken 30 minutes before bedtime.

• Vitamin D-3. I saved the best for last. There is compelling evidence that deficiencies in this vitamin play a major role in a number of neurodegenerative diseases. The risk of developing multiple sclerosis is much higher when vitamin D-3 is deficient, and some evidence indicates that Parkinson's is more prevalent in northern climates because of less exposure to sunlight.

Studies have shown that vitamin D-3 protects against inflammatory cytokines and against excitotoxicity. Of great interest, vitamin D-3 quiets microglial overactivity, thereby reducing brain inflammation.

The dose depends on where you live, skin color, and your normal level of sun exposure. If you live in the North, rarely get in the sun and have dark skin you are at great risk of having a significant vitamin D-3 deficiency. It has been estimated that 70 percent of the American public is deficient in vitamin D-3.

Previous RDA levels for vitamin D were far too low. It is now recommended that all adults should take 2,000 international units (IU) a day of vitamin

#### Page 10

#### The Blaylock Wellness Report

D-3, the functional form of the vitamin. Children and even small babies should get at least 1,000 IU a day. If you have dark skin and rarely get in the sun, you should take 5,000 IU a day and possibly 10,000 IU, especially during the winter months.

Prior warnings by the medical elite about dangers of too much vitamin D in the diet have been shown, like most of their nutritional pronouncements, to be a lot of baloney. If you take over 2,000 IU a day, you should get a blood calcium level at least within the first week of starting on the vitamin, just to make sure you are not absorbing too much calcium. Pregnant women should take at least 2,000 IU of vitamin D-3 during pregnancy and during breastfeeding to protect the baby.

There is strong evidence that vitamin D-3 deficiency increases the risk of autism, especially in vaccinated babies.

#### **Regular** Exercise

Numerous studies have shown that regular exercise reduces brain degeneration and promotes brain healing.

Excessive exercise such as intense running, aerobics, and extreme athletic events, can worsen brain degeneration because they all increase freeradical and lipid-peroxidation generation.

Moderate exercise, such as brisk walking, weights and resistance exercises, are best. Moderate exercise can cause the brain to release special healing neurotrophic substances, such as glia-derived growth factor (GDGF), brain-derived growth factor (BDGF), and neurotrophic growth factor (NGF).

Adequate rest, regular mental activity, and spending time with friends and family are also important, and spiritual devotion is vital.

#### About Dr. Blaylock

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He attended the Louisiana State University School of Medicine in New Orleans and completed his internship and neurosurgical residency at the Medical University of South Carolina in Charleston, S.C.



For the past 26 years, he has practiced neurosurgery in addition to having a nutritional practice.

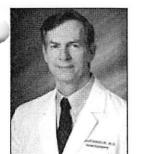
He recently retired from his neurosurgical duties to devote his full attention to nutritional studies and research. Dr. Blaylock has authored three books on nutrition and wellness, including "Excitotoxins: The Taste That Kills," "Health and Nutrition Secrets That Can Save Your Life," and his most recent work, "Natural Strategies for The Cancer Patient." An in-demand guest for radio and television programs, he lectures extensively to both lay and professional medical audiences on a variety of nutrition-related subjects.

Also, Dr. Blaylock has been appointed to serve on the Scientific Advisory Board of the Life Extension Foundation. He is the 2004 recipient of the Integrity in Science Award granted by the Weston A. Price Foundation.

Dr. Blaylock serves on the editorial staff of the Journal of the American Nutraceutical Association and on the editorial staff of the Journal of American Physicians and Surgeons, official publication of the Association of American Physicians and Surgeons.

He previously served as clinical assistant professor of neurosurgery at the University of Mississippi Medical Center in Jackson, Miss., and is currently a visiting professor of biology at the Belhaven College, also in Jackson.

PLEASE NOTE: All information presented in The Blaylock Wellness Report is for informational purposes only. It is not specific medical advice for any individual. All answers to reader questions are provided for informational purposes only. All information presented in The Blaylock Wellness Report should not be construed as medical consultation or instruction. You should take no action solely on the basis of this publication's contents. Readers are advised to consult a health professional about any issue regarding their health and well-being. While the information found in The Blaylock Wellness Report is believed to be sensible and accurate based on the author's best judgment, readers who fail to seek counsel from appropriate health professionals assume risk of any potential ill effects. The opinions expressed in The Blaylock Wellness Report do not necessarily reflect those of Newsmax Media.



### Ask Dr. Blaylock

Attention Blaylock Readers:

Dr. Blaylock welcomes any questions or comments you would like to share. Each month, he will select a few to be published and answered in the newsletter. Please remember that he cannot answer every question. When submitting a question or comment, please include full name, city, and state. Please e-mail the doctor at: <u>askblaylock@newsmax.com</u>.

Q: Are there supplements that will help with Wegener's granulomatosis?

— Tara F., Redondo Beach, Calif.

A: Wegener's granulomatosis is a disorder associated with vasculitis, or inflammation of the blood vessels, especially the smaller blood vessels. It becomes especially problematic when the lungs and the kidneys are affected, as they cause the greatest risk to life. While no nutritional treatments have been scientifically studied, there are theoretical possibilities that could offer considerable benefit.

Since this is an inflammatory disease, antiinflammatory supplements should help. The mainstream medical community is aware of the anti-inflammatory effect as well. In fact, powerful immune suppressant drugs, such as cyclophosphamide, prednisone, and methotrexate are the current medical treatments of choice to reduce the intense immune reactions. Unfortunately, all of these have considerable side effects and serious complications associated with their use.

One hint for treatment comes from the fact that Wegener's is less common in Japan than European countries and the U.S., and this may be due to a higher intake of omega-3 oils and flavonoids. The Japanese have some of the highest intakes of flavonoids from fruits and vegetables.

Increasing one's intake of omega-3 oils, as purified capsules or in liquid form, dramatically reduces symptoms and damage in a related autoimmune disease — Lupus. Taking 1,000 milligrams of fish oil daily can significantly reduce the immune attack and reduces inflammation.

Any chronic inflammatory disease, as with Wegener's, is associated with a depletion of magnesium, and magnesium can reduce inflammation, improve blood flow through the microvessels, and increase the cell's antioxidant protection. Taking 500 milligrams of magnesium citrate/malate twice a day will accomplish this. For people with kidney damage, blood magnesium levels must be carefully monitored.

Curcumin and quercetin both powerfully reduce inflammation and could be of benefit. They are best absorbed if mixed with extra-virgin olive oil. The dose is 500 milligrams of each three times a day with meals. It will reduce damage to the lung and kidneys, as well as other organs and tissues. A good multivitamin, without iron, is also essential. Vitamin C and the B vitamins are rapidly lost with chronic inflammatory diseases. Be sure to follow the dietary recommendation from my last two newsletters.

#### Q: Is there a natural way to treat social anxiety? — John Q, Middleton, Pa.

A: There are several supplements that are quite useful in calming anxiety. But most important is to avoid food additives that increase anxiety, such as caffeine and food additive excitotoxins, including MSG, hydrolyzed vegetable protein, soy products, natural flavoring, caseinate, etc. Also, avoid sugar, since sugar precipitates hypoglycemia in close to 50 percent of the population and is know to dramatically increase brain excitability.

As for supplements, there are several. One that I have found most useful is theanine, which is an extract of green tea. It has been shown to calm the brain and improve memory and a sense of wellbeing. The dose is 200 milligrams to 400 milligrams twice a day on an empty stomach. L-carnosine (not L-carnitine) also calms the nervous system and establishes a sense of well-being. The dose is 500 milligrams twice to three times a day, also on an empty stomach. Magnesium also calms the brain and many people are deficient. The dose is 500 milligrams twice a day. It has also been shown

#### Page 12

#### The Blaylock Wellness Report

April 2009

that low levels of vitamin D-3 cause irritability and that raising the intake can lower excitability. New recommendations suggest at least 2,000 international units a day of vitamin D-3, the active form.

Q: During your diligent research, have you come across any evidence supporting damage to the brain from cell phones?

— Jim M., Brooklyn, N.Y.

A: There is considerable evidence that cell phones damage the brain as well as other tissues and organs. Many studies have shown that the microwave radiation from cell phones damages tissues and especially DNA. In fact, two of the scientists cell phone companies backed to do these studies were fired when their studies demonstrated DNA damage in all cells exposed to the wavelengths and energy from cell phones.

Several studies have shown an increase in brain tumors and a breakdown of the blood-brain barrier. The risk is especially great for children because of their thin skulls, which exposes a greater volume of their brains to the radiation. In addition, because their brains are still undergoing a considerable amount of development, the radiation can cause abnormalities in brain pathway development.

I am especially concerned with the great number of pre-teen and teenagers using these phones for such long periods of time. Remember, the brain does not reach full maturity until age 27. I am also concerned that so many microwave towers are being placed within buildings — even on the steeples of churches. These towers are blanketing entire cities with microwaves. There are studies that show that cell phone microwaves can induce sterility, as well.

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Any unauthorized reproduction or distribution of information contained herein, including storage in retrieval systems or posting on the Internet, is expressly forbidden without the consent of Newsmax Media. **Newsmaxmedia**  Q: Is it OK to follow your recommendations for magnesium while having poor kidney function? — Marilyn A., Athens, Texas

A: Magnesium excess is cleared by the kidneys, so a person with impaired kidney function will need to reduce the amount of magnesium ingested. Be sure to consult your doctor and have your doctor closely follow your progress. This will require blood tests.

It is of interest to know that magnesium improves blood flow to the kidneys, and I have seen some patients whose kidney function actually improves once they were on the magnesium.

Q: Are there natural supplements that will help with hypothyroidism (low thyroid function)? — Claire G., Mansfield, Mass.

A: It depends on the degree of thyroid damage. In those with extensive damage, as seen with such conditions as Hashimoto's thyroiditis, there is not enough thyroid reserve to produce the hormones needed. With early or mild hypothyroidism, one may improve function by a combination of iodine and tyrosine.

Many cases of hypothyroidism are secondary to iodine deficiency. If you take additional iodine, you should also take selenium 100 micrograms a day to prevent inducing autoimmune thyroid problems. I would caution that some cases of hypothyroidism are secondary to celiac disease; that is an immune sensitivity to gluten and gliadin.

Tyrosine is an amino acid that the thyroid gland uses to make its hormone.

You can get a combination product containing iodine and tyrosine from www.vitacost.com. It is from the Pure Encapsulations company.

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