

# treating **PARKINSON'S** integratively



I noticed him at the new patient orientation class, which is a group meeting with patients before they actually become patients. We introduce them to the practice and tell them how to get the most benefit from working with us. We give people homework assignments such as imagining themselves as healthy and well and eliminating wheat, dairy and sugar from their diets.

Mr. Frank Freeman just sat there with a stone-like stare while others occasionally laughed at my jokes, smiled or nodded their heads. He moved very slowly and rarely moved his head, his body or his face. He occasionally moved his eyes towards his wife. While I had not seen him walk-in, I knew that he had a slow shuffling gait taking very small steps and that he was very unsteady when he tried to turn. His lack of normal movement was diagnostic of Parkinson's disease.

After the meeting I approached Mr. Freeman and his wife. "How long have you had difficulty moving?"

"T-T-Two years." Only his lips moved.

"He has so much difficulty talking, let me to tell you what is going on," offered his wife, Frances. "Frank feels like he is

walking through molasses. It started with a tremor in his right hand 5-6 years ago, and he was told lots of people get tremors as they get older. But when he started walking funny, his doctor sent him to a neurologist. He told us that Frank had Parkinson's disease. He's been on Sinemet and Requip for 4 years, and initially it helped, but it doesn't seem to be helping as much anymore."

"Parkinson's disease can be a very frustrating illness for patients and their families," I empathized. "I may be able to offer you some specific different therapies from your conventional doctors. But first I want to do a thorough exam and evaluate your general health. This will include looking at your nutrition, your vitamin supplements, and other factors that contribute to your brain getting older faster than it should. I also want you to imagine yourself being well: good strength, flexibility, balance and normal movement. I want you to answer the question: What are you going to do when you are healthy?"

"We'd heard that you were different. You give IV treatments for Parkinson's. That's why we're here." Frances patted her husband's arm. "Can we get started on that

soon?"

"First, the exam and evaluation, then the IV therapy." I held up my hands as if to slow her down. "Even though the IV glutathione can work miracles for Parkinson's symptoms, people usually get Parkinson's disease because they are toxic and nutritionally deficient. So I need to make certain that everything else is balanced, before we begin the IV therapy for him to have the safest and best experience."

Mr. Freeman just stared at me throughout this entire discussion. I could only imagine what his real emotions were. This was one of the most frustrating complaints from a Parkinson's patient and their family. The patient loses the ability to convey their feelings, leaving families hungry for that emotional connection.

I smiled and held his shaking hand. "I look forward to working with you."

"I-I want to r-r-ride my t-t-t-tractor again." Mr. Freeman's lips moved again.

"I think that's a fabulous goal." I smiled. "I'll see you soon."

## **Two weeks later**

Mr. Freeman and his wife returned to

the office. "Good morning!" I shook his shaking hand.

"I-I-I want to ride my tractor." He looked towards his wife who immediately jumped in.

"That's all he's talked about since we saw you two weeks ago. He wants to get back on his tractor. He's been a farmer all his life and he hasn't been able to ride on his tractor for over a year. We raised tobacco for years and Frank loved preparing the fields and mowing the grass." Frances smiled with a sad face. "Do you think there's any chance he can do that again?"

"I can't make any promises, but I've seen many people with Parkinson's disease improve significantly with the therapies that we provide." I touched Frank's shoulder.

I was not surprised that he had been a tobacco farmer. There is a well-documented association between exposure to pesticides and Parkinson's disease. Also this patient was old enough that he was exposed to DDT over many years. Pesticides kill insects by damaging their nervous system. And in the right people, they can trigger neurological damage and progressive decline.

He was a former smoker and had a heart attack in his mid 50s. He had stopped smoking after his heart attack. He took Coreg (carvedilol) for his blood pressure and Crestor 20 mg (rosuvastatin) for his cholesterol. Review of outside labs revealed that lipids, CBC, metabolic profile, and thyroid functions were all within normal limits. He was also taking Tylenol PM to help them sleep at night.

He also complained of constipation, difficulty swallowing and having to empty his bladder frequently. All of these symptoms were very common among Parkinson's patients. Fortunately, he was not experiencing the excessive sweating or cognitive decline that some Parkinson's patients experienced. He also had pain in his joints and muscles. This was not characteristic of Parkinson's disease and had been attributed to osteoarthritis.

**Physical exam:**

BP 140/90, P 84, T 98.4, R 16, Ht 5' 10", Wt 202lbs. His wife reported that he was clearheaded though somewhat depressed because of his situation. He had the characteristic tremor of Parkinson's disease. Right hand worse than left. It got worse when his hand was at rest and diminished when I had him use his hand or

**Elizabeth Vaughan, MD**



write his name. He had a tremor or fasciculations of his tongue. He blinked his eyes very infrequently and he didn't smile spontaneously.

He was very stiff with increased tension in his arms and legs. His wrist ratcheted or demonstrated cog-wheeling when I tried to move it instead of moving smoothly. His posture was stooped forward. He had a shuffling gait taking very small steps and it took him eight small steps to teeter totter around when he made 180° turn in the hallway. He didn't swing his arms when he walked. He froze several times and appeared to have his feet stuck to the carpet. He almost fell twice because of poor balance. All of this was consistent with Parkinson's disease

After he walked, I sat down with Mr. Freeman and his wife to review the underlying causes of Parkinson's disease. "We know that Parkinson's disease is caused by decreased production of dopamine in a certain part of the brain. This part of the brain is called the substantia nigra and it is responsible for control and coordination of movement. Sinemet (levodopa) raises dopamine levels and Requip (ropinirole)

enhances the effectiveness of Sinemet. Both are very helpful with symptoms. But they don't treat the underlying cause of the damage to the brain.

"Conventional doctors recognize the association between pesticide exposure and Parkinson's disease, but they do not address the impact of these toxins on the brain. They do not look at why these dopamine producing neurons stop working. What damaged these neurons in the first place? What are the kinds of things that damage all neurons as we get older and in your case damage the cells in your substantia nigra? The answer is chemical toxins including pesticides and heavy metals and inadequate levels of vitamins and other nutrients. Also, inflammation from

**We're Open!**

**Company Shops Market**

LOCAL FOOD FOR LOCAL PEOPLE

**The Triad's Newest Full Service Cooperative Market!**

- Local, organic, and sustainably-raised meats, produce, eggs & dairy
- Hot bar buffet, salad bar, Grab n' Go
- Coffee bar and bakery
- Large selection of NC beer & wine
- Bulk grains, beans, nuts and spices
- Health & body care products

Open 8am-8pm daily

268 East Front St. • Downtown Burlington • 336-223-0390  
[www.CompanyShopsMarket.coop](http://www.CompanyShopsMarket.coop)



low-grade infection, elevated blood sugar, and elevated homocysteine. We can test for and correct these causes.

"All of these result in excess production of free radicals and oxidative stress which is damage from burning oxygen to make energy inside our cells. These damage the mitochondria, which are the power houses inside our cells. When a cell cannot make enough energy to repair itself or function, it commits suicide or apoptosis.

"By the time someone has Parkinson's disease 80-90% of the cells in their substantia nigra have committed suicide. Our job is to help the remaining 10% of the

cells get healthier and stronger.

"Glutathione is the brain's favorite antioxidant. It puts out the fire that's damaging the mitochondria. It helps the healthy cells stay strong and slightly sick cells get stronger. Some Parkinson's patients have lower than average levels of glutathione in their blood. We think that this is due to the brain needing more glutathione to heal itself. Or the liver may be using more glutathione to eliminate toxins. This brings me to Tylenol. I want you to stop taking Tylenol PM because Tylenol depletes glutathione in the liver. That's not going to help your brain." I shook my head.

"My stars, I'm throwing that stuff away

when we get home" said Mrs. Freeman shaking her head. "But he can't sleep without it..."

"I'll get back to that." I nodded my head. "Also, Sinemet may raise one's homocysteine, which is another pro-inflammatory metabolite. High homocysteine increases the risk of Alzheimer's, heart disease, and stroke. You've already had a heart attack, so I want to protect you from cerebral vascular disease and future cardiovascular disease. Sinemet can make Parkinson's worse and may cause the dementia that may develop in Parkinson's patients," I paused.

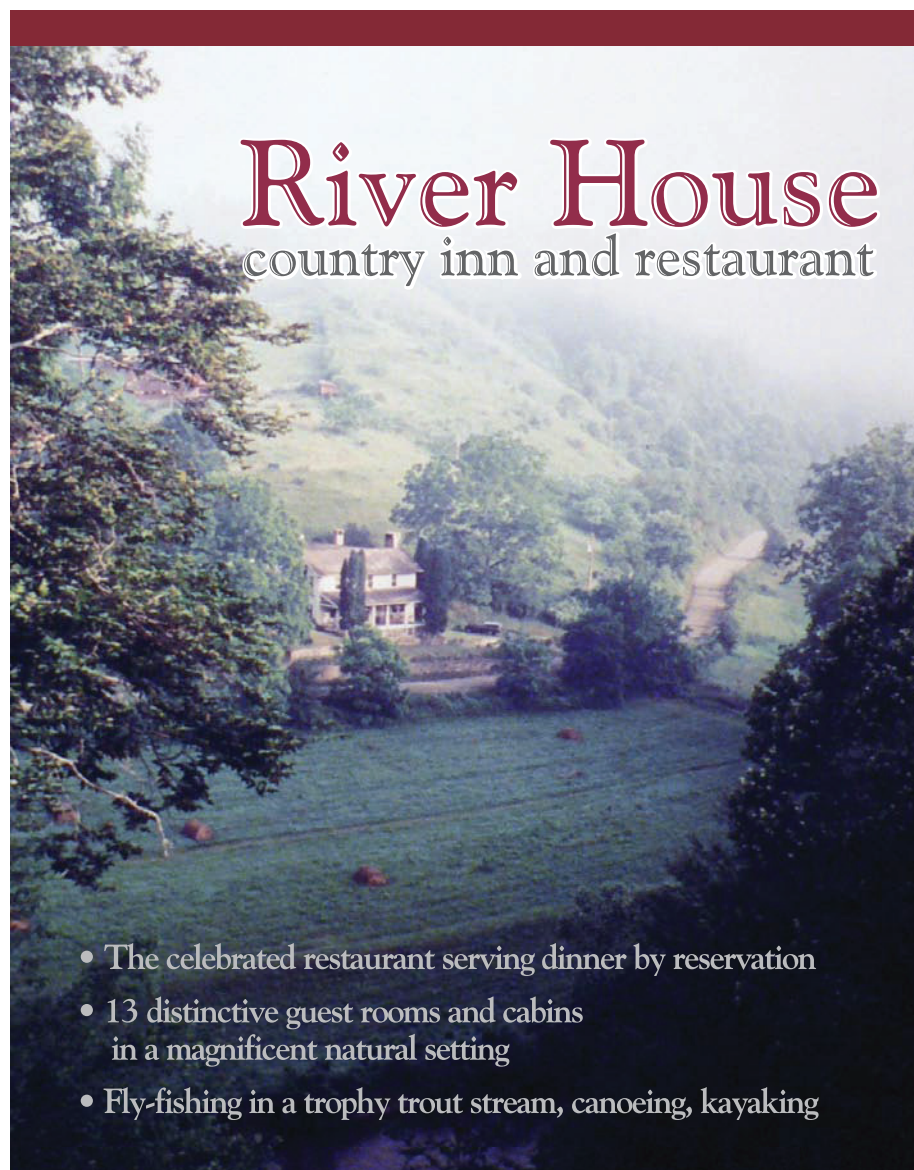
"Do I throw away the Sinemet too?" Frances raised her eyebrow and cocked her head.

"No, continue to take the Sinemet and Requip for now. We may use lower doses of both of these medications in the future. These are useful drugs." I reassured them. "I'll check a homocysteine level. It may not be an issue for him. If it is elevated, extra B vitamins will lower the homocysteine to safe levels."

"Lastly, your Crestor and Coreg can both lower your coenzyme Q10 (CoQ10)." I took a deep breath. It was always difficult to point out to patients how the very drugs they were dependent on could be inadvertently contributing to deterioration in their health. "CoQ10 is a potent antioxidant and a critical transporter in your mitochondria. It helps make energy to keep the cell alive. I do not want you to stop the Coreg, but I want you to reduce the Crestor by 50% and start on Tocotrienols, which are a specialized type of vitamin E and will lower your cholesterol and raise your CoQ10 levels at the same time."

"So all the medications that he is taking are working against him..." complained Frances.

"Not necessarily, we can test for potential problems" I again reassured her. "I want to check levels of glutathione, CoQ10, and C-reactive protein (CRP) to check for low levels of inflammation. Also, a hemoglobin A1c to see if his blood sugar is elevated, which is the most common cause of inflammation in this country. And a lipid peroxide to screen for damage to his cells and mitochondria from free radicals. Lastly, I want a Vitamin D level. It enhances mood and helps to control inflammation in subtle ways in the body. We'll collect these tests now. Then I'll give your husband a nutritional IV and he will



**River House**  
country inn and restaurant

- The celebrated restaurant serving dinner by reservation
- 13 distinctive guest rooms and cabins in a magnificent natural setting
- Fly-fishing in a trophy trout stream, canoeing, kayaking

[www.RiverHouseNC.com](http://www.RiverHouseNC.com)  
336-982-2109

get his first test dose of glutathione."

After Mr. Freeman had his labs drawn and received a 90 minute nutritional IV, I gave him a very low dose, 200mg, of glutathione slow IV push. I didn't think it would have a significant effect, but I wanted to make certain that he would not have a bad reaction to it. He did fine.

Before Mr. Freeman and his wife left, I reviewed the supplements I wanted him to use. "Start on Tocotrienols 100mg each night to work with the lowered dose of Crestor. Melatonin 3 mg sublingually each night. It's a superb antioxidant that reduces inflammation in your brain and hopefully it will help you sleep better. Take it with magnesium glycinate 200 mg at night for sleep, CoQ10 100 mg twice a day, alpha lipoic acid 300 mg twice a day (an excellent detoxifying nutrient and antioxidant), N-acetyl-cysteine (NAC) 600 mg each night which will help you make more glutathione, DHA 300 mg twice a day (your brains favorite fat), and a good multiple vitamin with minerals, vitamin E, vitamin C, B vitamins, and anti-inflammatory and detoxifying herbs."

"That's a lot of pills" complained Mrs. Freeman.

"Yes it is, and he may need to be on even more pills depending upon how he responds to these." I didn't back down. People with neurodegenerative disease who want to turn it around have to take supplements. Lots of them. Several times a day. "Be sure to let me know if you and he cannot handle the number of pills that I am giving him. For now, I want you to try taking these on a regular basis. I also want you to come to the office once a week for a nutritional IV and return to the office in 2 days for a bigger injection of glutathione. We will slowly increase the amount of glutathione that you're taking until we reach an optimum level of improvement or 2000 mg. Once we find out if it is going to work and what dose works best for you, then I can arrange for a home health nurse to give you the IVs in the comfort of your own home.

"I want you to go over and talk to my nutritionist who can help you with the supplements and a diet that is healthier for your brain. I want you to eat lots of fruits and vegetables that are colorful and contain detoxifying agents and antioxidants. One or 2 servings of cruciferous vegetables a day such as broccoli, cauliflower, and Brussels sprouts.

"I also want you to avoid all grains and

dairy for the next month. My nutritionist will be able to help you with all of this including recipes." I waited. Usually patients balked at this point. But I knew that if they didn't optimize Mr. Freeman's diet, he wouldn't benefit as much from the other treatments.

"We gave up fat back and ham hocks a long time ago" smiled Frances while patting Frank's knee. "After Frank had his heart attack, we completely changed our diets. We are going to have to work on giving up the bread completely. But if it will help Frank get back on a tractor, you'll do it, won't you honey?"

Frank furrowed his eyebrows and nodded his head, "I'll give it a try."

Frances did a double take, and looked at her husband again, "Frank, your face is moving."

Frank raised his eyebrows this time and gave a weak smile.

"Try standing up and walking down the hall," I said with a tear in my eye. I'd seen this before, but each time it happened I felt blessed to be present at a miracle.

Frank stood up, stretched his arms above his head and took a few steps. He still had difficulty turning, but clearly his movements were smoother. His feet didn't stick to the floor although his gait was still a shuffle.

"This is just the beginning." I took a deep breath. "I don't expect this to last for more than 12-24 hours at best. I want you to come back in 2 days for your next dose. Be happy that you are responding to such a low dose."

## 2 days later

Frank and Frances returned to the office. He shuffled in, hunched over. "I-I-I n-n-need m-more."

"You certainly do. Frances, how long did the first dose last?" I asked.

"He was back to normal by yesterday morning." Frances pursed her lips. "It was disappointing."

I took a deep breath. People expected miracles. "See how long this next injection lasts. Since we are increasing the dose every time I see him, it should last longer this time and longer the next."

While my staff gave Frank the next injection of 400 mg of glutathione, I reviewed the results of earlier labs. Homocysteine elevated, 18 (increased inflammation); vitamin D low, 32 (increased inflammation); B12 lower range of normal, 416; folic acid normal, 15; CRP normal,

1.0 (little inflammation); and hemoglobin A1c moderately high, 6.3 (pre-diabetic range and high inflammation).

"There is a lot of room for improvement here." I smiled. "Your entire brain, not just the portion affected by Parkinson's disease, and your entire body are going to be healthier as you make the appropriate changes in your diet and take your supplements on a consistent basis. In addition to what you're taking now, I only want to add vitamin D 5000 IU per day. You're going to be getting nutritional IVs with plenty of B12, folic acid and B6 once a week. This will help to bring down your homocysteine. I want it to be between 4 and 6 opti-

mally. "You're already on alpha lipoic acid, which will help your brain get younger and lower your blood sugar. You're already on your way to becoming a diabetic so it's important to take this. Have you seen my nutritionist yet?"

"We were too overwhelmed the other day," admitted Frances. "We have an appointment to see her today."

"I know this is a lot to take in," I didn't know how to make it any easier.

Once his IV was complete, they left the office to see my nutritionist. Thirty



Dinner & Late Night  
7 days a week

**NEW Seasonal Menu**  
35 Wines By the Glass  
Vegetarian and Vegan Options  
Outdoor Dining (weather permitting)  
Catering  
Curbside Pick-up

Good Food is hard to find  
so come find us!   
Near WFU off Robinhood Rd.

Locally family owned business for  
over 20 years...come see us!

**336-722-0006**  
**DiamondbackGrill.com**  
751 N. Avalon Rd  
Winston-Salem

minutes later my nutritionist called, "This is amazing, Frank's face just melted and he started moving more easily. He and his wife are both so excited."

"Make certain they understand that this will be temporary. He needs to continue all his medications and supplements for now. They're scheduled to come back on Monday for another IV. Help them coordinate how Frank should take all the different supplements that are in the chart," I reinforced.

#### 4 weeks later

The Freeman's returned to the office for his 14th injection. He had had 4 additional nutritional IV's and we had determined that a dose of 1500 mg of glutathione lasted for about 48 hours.

While he still had some residual symptoms of Parkinson's disease, everything was moving in the right direction. He moved faster, his rigidity had improved, he was able to stand straighter when he walked, and he did not shuffle as much.

I shook his hand. "Your hand tremor is better."

He smiled excitedly. "So is my voice. I feel like I have my life back. I still haven't gotten on my tractor, but I think within a couple of weeks I'll be able to fire her up."

I reviewed the outstanding labs. Glutathione low 317  $\mu$ M, optimally this needed to be above 1000. Co Q10 0.2 mg/L, optimal range above 1.0. Lipid peroxides elevated, consistent with uncontrolled free radical production in Frank's body.

"I suspect you have significant liver dysfunction which is why your glutathione is so very low. The liver has to make glutathione in order to eliminate toxins. If your liver is not able to make the glutathione then the toxins accumulate and contribute to your getting Parkinson's disease.

"And, this is also why you've responded so quickly to the glutathione IV's. Remember to stay off the Tylenol because it uses up your glutathione," I explained. "Your CoQ10 is also extremely low. This is probably from the combination of Crestor and Coreg. Are you less achy than you were before?"

Frances and Frank looked at each other. "I hadn't thought about it. So much has been going on." Frank moved his shoulders. "I haven't been complaining about my joints the way I used to."

"You should also have a lot more energy taking the CoQ10 and your supplements. Is your head clearer?" I asked.

"Again, I hadn't really thought about it, but my mood's a lot better," smiled Frank. Frances nodded her head in agreement.

"Lastly your lipid peroxides show a need for significantly increased antioxidant intake. I want you to take all 6 of those multiple vitamins a day. In addition to that, I want you to take an extra gram of vitamin C twice a day and I want you to continue getting the nutritional IV's once a week for the next month," I instructed.

"Talk to your family doctor about switching your Coreg to an ACE or an ARB. I'll write that down for you. I can give you Co Q10 but if you can go on a different high blood pressure medication that does not lower your CoQ10 then you won't have to take as much supplemental CoQ10."

"How long am I going to have to stay on all of this stuff?" Frank, the farmer, wanted the bottom line.

"It boils down to this, some of your brain cells were killed by pesticides while growing tobacco. The remaining healthy cells need extra antioxidants and nutrients including glutathione to function normally. Your liver needs extra help to clear

the toxins out of your body.

"Right now, there is no oral supplement that I can give you that's equal to the very high doses of glutathione that you need for your brain to function optimally. Hopefully we can reduce the doses of Sinemet and Requip over the next several months. But I want to get you to the point where you feel good all the time and essentially all the symptoms of Parkinson's have improved or resolved. This treatment does not cure Parkinson's disease. It only slows down the progression.

"On the other hand, you had so many other parameters that were out of balance; my hope is that your Parkinson's is not as severe as it appeared to be when I first met you. Your CoQ10 level, lipid peroxides, blood sugar, Vitamin D and homocysteine all have to be in optimal range before we do a lot more. Only then can I start making predictions.

"Also, once you're functioning better and you're on stable doses of everything, I'll be testing you for heavy metal toxicity. If you have heavy metals, like lead, that will contribute to deterioration of brain function and make your Parkinson's worse. You may be on all of this for life. Again, I can't make predictions yet." I took a deep breath and waited.

Frank and Frances were quiet as this sunk in.

"We'll take it a day at a time," said Frances. "And we'll pray for the best."

"Yep, no one expected me to be alive ten years after my heart attack. Including me. We'll just show 'em again," said Frank nodding his head with determination.

"Great attitude. Call me after you get on that tractor and I'll see you in 2 months and we'll repeat all of your lab work at that time. I'll make arrangements for you to get the glutathione at home." I knew they had more adjustments to make. And I knew they would stray from the straight and narrow path they were following right now. But for now, they had the determination and belief that it would all work out for the best. I couldn't ask for more.

I smiled, took a deep breath and prepared to meet the next patient.

*Written by Elizabeth Vaughan, MD, Vaughan Integrative Medicine, 1301-A West Wendover Avenue, Greensboro. For an appointment, call 336-808-3627. Visit [www.VaughanIntegrative.com](http://www.VaughanIntegrative.com).*

*A headache center that knows  
your headaches aren't just in your head*

## HEADACHE WELLNESS CENTER

*Migraine Headaches • Electrodiagnostic Testing  
Sleep Disorders*

MARSHALL C. FREEMAN, MD • CHRISTINE L.J. HAGEN, MD  
1414 Yanceyville Street • Greensboro, NC 27405

**336.574.8000**

**[www.HeadacheWellnessCenter.com](http://www.HeadacheWellnessCenter.com)**

