



## Establishing the Link Between Viruses and Parkinson's Disease

**M**uch of the current research on Parkinson's disease is centered on the role that genetic and environmental factors play in its development. A recent study at St. Jude's Children's Research Hospital in Memphis, Tennessee, establishes that certain flu viruses could be an environmental agent leading to neurological diseases such as Parkinson's. Parkinson's disease involves the loss of brain cells crucial to a variety of tasks, including movement, memory and intellectual functioning. The vast majority of Parkinson's disease cases currently have an unknown etiology.

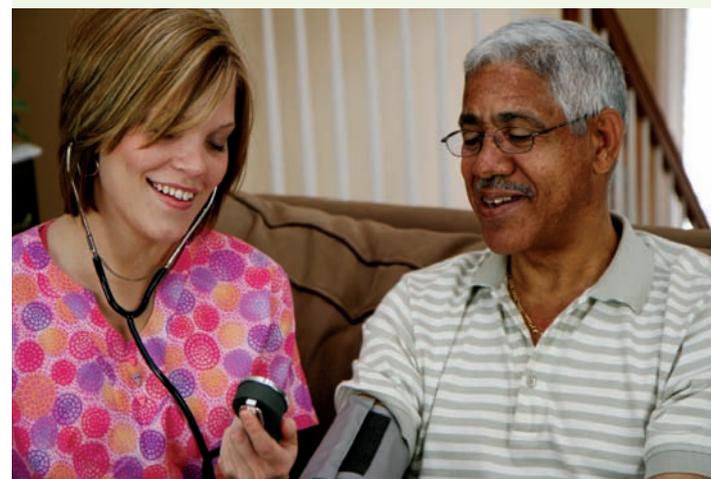
Flu is primarily a respiratory disease, but indirect evidence links it to neurological problems, including a type of brain inflammation known as encephalitis. The association between flu and brain disorders including Parkinson's is controversial, although epidemiology strongly links influenza with an outbreak of encephalitic lethargic following the 1918 Spanish flu pandemic. A substantial number of these patients later developed Parkinson's symptoms.

Researchers at St. Jude found that mice infected with a particular strain of bird flu, the H5N1 avian influenza virus, suffered respiratory symptoms as well as weight loss. In addition, these animals developed neurological damage similar to that which is seen in Parkinson's disease. The influenza virus first infects the lungs, and then quickly infects neurons located in the stomach and intestine. The influenza virus then uses the connections of these neurons to travel into the brain where it first infects a small group of cells in the brain stem and then spreads — over a period of a few days — to infect the midbrain (including the dopaminergic neurons of the substantia nigra) and eventually the neurons in the cerebral cortex. The infection by the influenza neurons is transient and by three weeks there was no evidence of H5N1 in the nervous system. However, despite the

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fact that an active virus was no longer detected, the St. Jude researchers found a continued inflammation within the brain that lasted for months.



Dr. Richard Smeyne

The study didn't suggest that the virus directly causes Parkinson's, but it does strongly suggest that it leaves survivors more susceptible to the disease. "Around age 40, people start to experience a decline in brain cells. Most people die before they lose enough neurons to get Parkinson's. But we believe this H5N1 infection changes the curve. It makes the brain more sensitive to another hit, possibly involving other environmental

toxins," said Dr. Richard Smeyne, Associate Member of St. Jude's Developmental Neurobiology Department and lead author of the study. Dr. Smeyne also serves on the National Parkinson Foundation's Clinical and Scientific Advisory Board.

In relation to Parkinson's disease, animals infected with influenza virus had a 17 percent loss of dopamine neurons in the substantia nigra. These are the same neurons lost in persons suffering from Parkinson's. Smeyne also reported that avian flu infection led to over-production of a protein found in the Lewy Bodies contained within brain cells of individuals with both Alzheimer's and Parkinson's diseases.

This research also supports the theory that a hit-and-run mechanism is at work in Parkinson's disease. The investigators believe the H5N1 infection sparks an immune response that persists long after the initial threat is gone, setting patients up for further devastating losses from a second hit, possibly from another infection, drug or environmental toxin. In this case, researchers think the flu virus is the first hit that sets up development of Parkinson's at a later time.

Haeman Jang, a graduate student in the lab of Dr. Smeyne and principal author of the study, said the research is "the first study with very direct experimental evidence that a virus that is in the environment can lead to this

pathology. It offers new insight as to how viruses can invade the central nervous system."

Smeyne noted the work involved a single strain of the H5N1 flu virus, the A/Vietnam/1203/04 strain, which was isolated in 2004 from a patient in Vietnam and remains the most virulent of the avian flu viruses. The threat posed by other viruses, including the current H1N1 pandemic flu virus, is still being studied. St. Jude researchers launched this study nearly three years ago in response to the threat posed by avian flu.

"It is important for the public to know that this is a strain of the influenza virus that has never hit the United States, and is not easily transmitted from birds to humans, and therefore we want to be sure people do not panic when they read the news about it. We are hopeful that these findings will help us toward the cause and cure of Parkinson's disease." This point was stressed by Dr. Michael S. Okun, NPF's Medical Director, who also said that "this study is of paramount importance to the field and may help us break through and reach a new understanding of Parkinson's disease. The second hit hypothesis of Smeyne is intriguing and is inherently attractive to scientists in the field."

The findings were initially published in August 2009 in *The Proceedings of the National Academy of Sciences*: "Highly pathogenic H5N1 influenza virus can enter the central nervous system and induce neuroinflammation and neurodegeneration." Other authors in this paper include Robert Webster, David Boltz and Yun Jiao (St. Jude); and Katharine Sturm-Ramirez and Kennie Shephard (formerly of St. Jude). St. Jude conducted the study because it is a World Health Organization Collaborating Center for Studies on the Ecology of Influenza in Animals and Birds.

This work was supported by a grant from the National Parkinson Foundation (NPF), one of the largest private funders of Parkinson's disease research. Each year, NPF, under the direction of our Clinical and Scientific Advisory Board (CSAB), supports cutting-edge research conducted by the world's top neurological experts. NPF funds novel or critical research, led at our 43 Centers of Excellence, offering the promise of improving care for the estimated one million Americans living with the disease.

# Participate in a Parkinson's Disease Study



## LEARN YOUR GENETIC CODE

**T**he National Parkinson Foundation has joined 23andMe, a personal genetics company, in recruiting 10,000 people with Parkinson's disease for an innovative web-based research project. The partnership between NPF and 23andMe will allow people with Parkinson's to receive a reduced rate of membership to the Personal Genome Service. The reduced rate of \$25 (\$399 commercially) is only for people who have been diagnosed by a physician, but we encourage non-patients to spread the word to people with PD. This discount is due to the generous support of Google co-founder Sergey Brin.



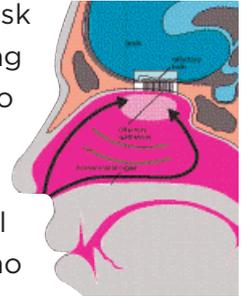
The requirements are simple: provide a small saliva sample for genetic analysis and agree to participate in online surveys about your experience with Parkinson's.

Historically, it has been a challenge for scientists to assemble and study populations of more than a few thousand individuals. 23andMe aims to assemble a much larger and diverse patient population that is available for ongoing research purposes. This is critical for magnifying the data contributed by each individual into a clear and readable signal that will allow scientists to push Parkinson's disease genetics closer to practical therapeutic relevance in treating the disease. We encourage you to visit the 23andMe web site, [www.23andme.com/pd](http://www.23andme.com/pd) to learn more about their project. 23andMe has partnered with the National Parkinson Foundation, the Michael J. Fox Foundation, The Parkinson's Institute and PatientsLikeMe.

*If you are a person with Parkinson's disease and decide that you would like to participate in this innovative research project, fill out the online form at <http://www.parkinson.org/23andMe> to request a code to access the \$25 price.*

## TAKE A SMELL TEST

**T**he Parkinson's Associated Risk Study (PARS) is a groundbreaking study to test a strategy to evaluate individuals for early signs of Parkinson's disease or other neurodegenerative disorders. The goal of PARS is to better understand who may be at risk for Parkinson's disease so that it can ultimately be prevented before it starts. This study will evaluate thousands of individuals with or without a relative with Parkinson's disease to determine whether specific tests are able to predict who may be at increased risk for developing Parkinson's disease. PARS is also expanding to study general brain health in a study called MindSpan.



Loss of smell is a common first symptom in people with PD; the decrease in the sense of smell frequently occurs prior to the onset of motor symptoms. The initial test to be evaluated in the study is a smell identification test and a brief questionnaire that is distributed by mail and completed at home. Some participants may be asked to visit the study center which is geographically closest to where they live. By using smell testing in combination with other tests, PARS hopes to develop a system to detect signs or symptoms that may predict who is at risk for Parkinson's disease.

You may be eligible to participate in this study if: you are greater than 60 years old with or without a relative affected by PD, or you do not currently have a diagnosis of PD, Alzheimer's disease, or other related neurological disorder.

*For more information, visit the PARS web site: [www.parsinfosource.com](http://www.parsinfosource.com) or call 877.401.4300.*

# Recognizing Caregivers in November

## Donna Peacock Shares her Story

**A**s an advocate for Parkinson's disease, I tell my story as a caregiver often.

First and most important, I do not define myself as a caregiver. I am a photographer, a crafter and a working accountant; a wife, mother, grandmother and great grandmother and I have been a caregiver for my mother-in-law, my mother, and my husband for the last 30 years.

My husband and I have had our ups and downs for the last 34 years as he has battled Parkinson's disease. Our biggest mistake at the start of this journey was making Parkinson's disease our complete focus in life. If I have learned anything over the years, it is that I cannot be defined as just a caregiver.

Financial worries remain a big hurdle. We were preparing for our retirement with an IRA and would have been in good shape if it were not for Bill's Parkinson's disease and the economic downturn. We are now in the donut hole for Bill's medicine and this adds about \$300 to an already tight budget.

### Donna's Advice to Caregivers:

- Don't be afraid to ask others for help
- Take time for yourself
- Find things you both can enjoy

Our most difficult years were a couple of years just before Bill's deep brain stimulation surgery. The surgery was a miracle and Bill still has very few tremors.

My main goals each day are to make sure Bill gets some exercise, has healthy meals and gets outside. I only leave him alone three to four hours at a time; I set the phone so he can hit redial and call my cell phone. Whenever



*Donna and Bill Peacock in March 2009 in Washington, D.C. They visited the Illinois Senators and Representatives to encourage them to support research for Parkinson's disease and the National Registry for MS and Parkinson.*

possible, Bill runs errands with me. Sometimes, when the weather allows, he may just sit in the truck and listen to the radio while I shop. Most of the time, someone we know will see him and visit with him.

Communication is the most frustrating thing that I have to cope with because Bill has a lot of problems with his speech. Just like me, no matter how difficult it gets, he still likes to talk. He may have to repeat what he wants to say two to three times before I can understand it.

My strong faith and the support of my family and friends help me through difficult times. There are times in my Sunday School class where we only discuss our problems. I think it is so true that when you hear the problems of a group and put them all on the table, yours are not so bad.

I attend a women's group — Illinois Federation of Business and Professional Women — and also get lots of support from them. Last year, they nominated me as Senior Saint of the Year for Jefferson County — such a terrific honor. Eight years ago, after Bill's DBS surgery, we started a Parkinson's Support Group and we are still the leaders of that group in St. Louis. I enjoy helping others and give talks to other civic groups in our community.

I am a child of God, wife of Bill Peacock for 54 years, photographer, crocheter, lover of nature, bookkeeper, mother, grandmother and, last but not least, a caregiver to my husband who has Parkinson's disease.

***If you would like to share your story as a caregiver of someone living with Parkinson's disease, please e-mail us at [contact@parkinson.org](mailto:contact@parkinson.org).***

# How do I Manage Caregiver Fatigue?

AUTHOR: SUSAN C. IMKE, RN, MS

Caregiver stress is, unfortunately, a part of life when caring for someone with a chronic illness such as PD – especially over an extended period of time. “Compassion fatigue” and even exhaustion can take a toll on your physical and emotional health. How can you and those people in your expanded circle of support recognize the signs of caregiver fatigue, and identify constructive ways of coping with the situation?



## SIGNS OF CAREGIVER FATIGUE:

- An ongoing tendency to ignore or postpone taking care of own health needs.
- Growing feelings of isolation, as in, “Nobody knows or understands what is really going on with us.”
- Feelings of anxiety, uncertainty about the future, “waiting for the other shoe to drop” which can trigger verbal or even physical abuse of the care recipient.
- Feelings of anger at the care recipient or situation, often followed by guilt.
- Feelings of profound tiredness, exhaustion not relieved by sleep.
- Emotional strain/stress, often manifesting as varying physical symptoms.
- An inability to concentrate or make decisions.
- Bitterness toward friends or relatives who “should help more.”
- Tendency to use alcohol or drugs to try to lessen stress levels.
- Depression, despair, feelings of hopelessness.

## SO WHAT CAN I DO TO FEEL BETTER?

- Schedule a meeting with key friends and family members to candidly discuss what’s happening with you and your loved one with Parkinson’s disease.\*
- Have the courage to share your feelings of isolation, and disappointment that friends have stopped coming to visit or that family members are not supportive in the ways you need.
- Make a short list of *specific* tasks that would help you take better care of your loved one and get some much-needed respite, i.e. “*Could you come every other Tuesday to take Frank to the barber and out to lunch?*” Be honest if lack of funds is a constant worry; perhaps someone in your circle might be able to help with medication costs for one month, or pick up groceries for you once a week.
- Ask for one or two volunteers to be “on call” for you during particularly bad days.
- Not everyone needs to seek counseling to cope with the burdens of extended caregiving, but all caregivers need an inner circle of friends they can call day or night without feeling like they are imposing.
- Many overburdened caregivers do need short-term professional counseling.

*\*If the caregiver is reluctant to call the meeting, a concerned friend or family member can do so on behalf of the fatigued caregiver.*

**To help determine your level of emotional distress, go to the web site:  
[www.depression-screening.org/caregiver](http://www.depression-screening.org/caregiver).**

**Visit the NPF Caregivers Forum:  
a place for caregivers to find support and address their concerns, [www.parkinson.org](http://www.parkinson.org).**

Family Caregiving Alliance, National Center on Caregiving, is a public voice for caregivers.

Visit [www.caregiver.org](http://www.caregiver.org)  
to use the Family Care Navigator  
(State-by-State help for Family Caregivers).



## Top Questions and Answers from NPF's "Ask the Doctor" Forum

**W**e are proud to announce the publication of a new book, *Ask the Doctor About Parkinson's Disease* (Demos Medical Publishing, 2009). The book is a "greatest hits" compilation of questions we have been asked on the web site or in person over the many years we have had the privilege of interacting with you and learning from you. Remember you can ask a question at any time at [www.parkinson.org](http://www.parkinson.org) by joining our free web-based forum where we will have one of our experts address your Parkinson's related question. We are happy to present to you a sample of the top questions from the recently published book. All of the royalties from the sale of the book will be donated directly to the National Parkinson Foundation to support the mission of improving the quality of care for this generation of Parkinson's patients.

### AUTHORS:

Top: Michael S. Okun, MD  
Hubert H. Fernandez, MD

Bottom: Kelly D. Foote, MD  
Ramon L. Rodriguez, MD

### **Q** What is Alzheimer's disease, and can it co-occur with Parkinson's disease?

**A** Alzheimer's disease, like Parkinson's disease, is a neurodegenerative disorder (cells dying in the brain) that can lead to memory loss, confusion, hallucinations, behavioral disorders, and difficulty thinking. A large percentage of patients with Alzheimer's disease can have features that appear similar to Parkinson's disease (stiffness, slowness, tremor, gait problems), which is why it is important to visit a movement disorders neurologist, or a neurologist with some expertise in Parkinson's disease or neurodegenerative disorders, to obtain the correct diagnosis and appropriate treatment. Parkinson's disease can co-occur with Alzheimer's disease (some call it PD/AD), and this can present unique treatment challenges (e.g. medication sensitivity, increased memory and cognitive problems, difficult to control hallucinations).

Alzheimer's disease seems to be associated with deposition in the brain of the Tau protein, while Parkinson's disease is, in contrast, associated with deposition of alpha synuclein.

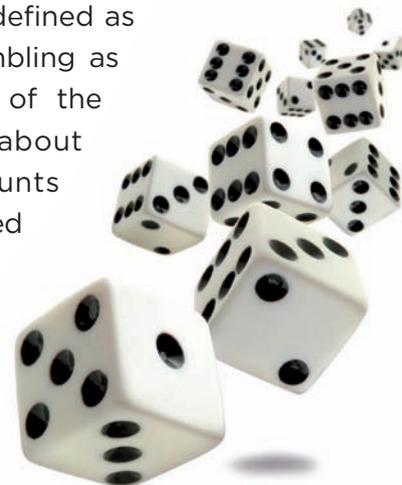
Current symptomatic treatments for Alzheimer's disease may include the use of a multi/interdisciplinary team, cholinesterase inhibitors (stimulate a chemical called acetylcholine which may improve memory), Memantine (stimulates a chemical called glutamate which is important for learning and thinking), as well as the provision of behavioral training and education for affected families. The same therapies may also be applied to Parkinson's disease patients with cognitive problems.

### **Q** What triggers psychosis in Parkinson's disease?

**A** Psychosis in Parkinson's disease is believed to be due to long term use of parkinsonian medications especially dopaminergic and anticholinergic drugs (Fenelon 2008; Zahodne and Fernandez 2008a; Zahodne and Fernandez 2008b; Fernandez 2008; Fernandez et al 2008; Friedman and Fernandez 2000). Significant medication exposure is no longer a prerequisite in Parkinson's disease psychosis (Ravina, Marder, Fernandez, et al 2007). The "continuum hypothesis" states that medication-induced psychiatric symptoms in Parkinson's disease starts with sleep disturbances accompanied by vivid dreams, and then develops into hallucinations and delusions, ending in delirium; however, this theory is now being challenged (Goetz 1998).

### **Q** How often does *pathological gambling* occur in Parkinson's disease?

**A** Pathological gambling is defined as loss of control to resist gambling as indicated by five or more of the following: preoccupation about gambling, increasing amounts of money gambled, repeated unsuccessful attempts to control gambling, restlessness or irritability when cutting down, using gambling to escape from problems or



to relieve depressed mood, chasing losses, lying to others about gambling, performing illegal acts to finance gambling, jeopardizing relationships, work or education, relying on others for money. Pathological gambling occurs in 2.6-4.4% of all PD patients and increases to 8% in patients taking dopamine agonists (Avanzi et al 2006; Stamey and Jankovic 2008; Zanda 2008; Driver-Dunkley et al 2003; Gschwandtner et al 2001; Molina et al 2000). In a survey at the University of Florida, about 8% of the patients had predisposition to pathological gambling. Younger patients, men, and those taking dopamine agonists were at greatest risk. They were also more anxious and “angrier” compared to non-gambling Parkinson’s disease patients (Fernandez et al 2008b; Shapiro, Okun, Fernandez, 2007).

As Parkinson’s disease patients are often the last to admit that their gambling habits are getting out of hand, it is important that spouses and caregivers be vigilant of this uncommon but potentially serious complication. We have had patients who have lost their entire retirement savings because of this condition. It is potentially treatable. Discontinuing the offending agent often relieves this abnormal urge to gamble, sometimes almost immediately.

## **Q** What is the potential timeline for stem cell breakthroughs in Parkinson’s disease?

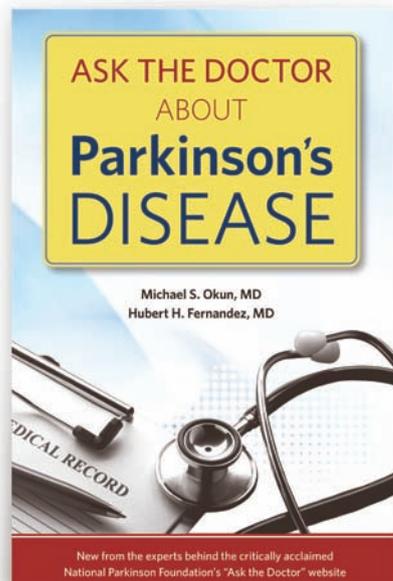
**A** The timeline for major breakthroughs in stem cell research is at best “fuzzy.” We have been encouraged by the thoughtfulness of the scientists involved in the research, and we remain hopeful that more breakthroughs will emerge both with time, and with the increased support of the current presidential administration. We hope that state agencies as well as other funding agencies will become more open to the funding of stem cell related projects — whether they are embryonic or adult focused. It is important for people interested in stem cell therapies to keep in mind that the answer may not be simply stem cell monotherapy (e.g stem cells alone). In addition to developing on/off technology and the ability to integrate into the brain’s complex circuitry, scientists should continue to keep open the possibility that a combination therapy (gene therapy, oral agents, etc.) may provide a more comprehensive approach to a very complex problem.

*The information published in this “Ask the Doctor” Forum is not intended to replace, and should not be interpreted or relied upon as, professional advice, whether medical or otherwise. Accordingly, please consult your own professional for all advice concerning medical, legal, or other matters published in connection with this Forum. NPF assumes no liability of any kind for the content of any information transmitted to or received by any individual or entity in connection with their use of the “Ask the Doctor” Forum on the NPF web site, and NPF does not endorse or recommend any such information.*

## **NEW BOOK:**

# **Ask the Doctor about Parkinson’s Disease**

*Michael S. Okun, MD, Hubert H. Fernandez, MD*



Derived from the National Parkinson Foundation’s web site column “Ask the Doctor,” this book answers frequently asked questions about Parkinson’s disease in depth. Useful for caregivers, family members, and individuals living with PD, *Ask the Doctor About Parkinson’s Disease* informs, empowers, and reassures readers with solutions and advice to their most pressing concerns. No topic is too simple or too complex.

*Ask the Doctor About Parkinson’s Disease* is the perfect reference for individuals living with PD, or for loved ones too embarrassed to ask questions.

248 pp Softcover, Price: \$15.95

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*All of the royalties from the sale of the book will be donated directly to the National Parkinson Foundation.*



# What's Hot in Parkinson's Disease?

## MRI and Deep Brain Stimulation (DBS) Devices: Is it Safe to Have an MRI with a DBS Device in Place?

**T**here has been a great deal of recent controversy as to whether Magnetic Resonance Imaging (MRI) can be safely performed in Parkinson's disease (PD) patients with deep brain stimulation (DBS) devices. The overarching worry has been that the MRI machines will heat the device, and this will in turn result in an irreversible injury to the brain. Despite these worries, there have been surprisingly few cases of MRI-related heating injuries associated with DBS devices. In one case reported by Henderson, et. al., proper MRI guidelines were not adhered to, and thus the injury was preventable (the patient had an abdominally implanted battery pack and the MRI was of the spine and not the head). In the other case, a deep heating technique called diathermy was utilized, and the heat injury to the brain was therefore not MRI related. The National Parkinson Foundation sought to more carefully examine the question of MRI safety in patients with DBS devices through a DBS working group.

You might ask why is it necessary to obtain MRI imaging following a DBS operation? There are actually a number of important reasons including, but not limited to: 1) confirming the DBS lead(s) placement; 2) looking for strokes/other newly presenting neurological diseases, and; 3) re-operating/inserting more DBS leads. The use of MRI post-DBS has been recently examined by the FDA and certain precautions have been recommended in patients undergoing MRI (e.g. nothing stronger than a 1.5T magnet, a head/receive coil on the machine, no abdominally placed batteries, MRIs only of the head, etc.). Despite the published precautions and an expanding

safety experience, radiologists at many institutions around the United States have become hesitant to image Parkinson's disease patients post-DBS. We sought to use the extensive network of NPF Centers of Excellence to examine the safety record.

Forty of 43 (95%) NPF Centers of Excellence completed a survey and 23 (58%) reported that they were currently performing brain MRI in DBS patients, while 3 (7.5%) had done it in the past. The 17 Centers of Excellence currently not performing post-operative MRI for DBS listed the following reasons: 1) industry guidelines and/or warnings (53%); 2) decision deferred to outside department (29%); 3) liability/risk/safety (18%); 4) no active DBS program (18%); 5) no available MRI (12%); and 6) insurance and reimbursement concerns (6%). A total of 3304 PD patients with one or more DBS leads had a brain MRI scan, and 177 DBS patients had a MRI of other body regions. In one case, MRI was associated with a DBS battery failure without neurological sequelae after battery replacement. No other complications were reported. Additionally, Larson et. al. has published a large experience in 405 patients without any adverse events from MRI scanning. This data, in total, provided evidence for a favorable risk/benefit ratio for brain MRI in patients with DBS implants. Findings were published in the *Journal NeuroImage*, 2009.

**Read Dr. Okun's monthly column,  
"What's Hot in PD?" online at [www.parkinson.org](http://www.parkinson.org).**

AUTHOR: **MICHAEL S. OKUN, MD**, National Medical Director,  
National Parkinson Foundation

**Selected References:** Tagliati M, Jankovic J, Pagan F, Susatia F, Isaias IU, Okun MS. Safety of MRI in patients with implanted deep brain stimulation devices. *Neuroimage*. 2009 Aug;47 Suppl 2:T53-7. Epub 2009 Apr 17. | Nutt JG, Anderson VC, Peacock JH, Hammerstad JP, Burchiel KJ. DBS and diathermy interaction induces severe CNS damage. *Neurology*. 2001 May 22;56(10):1384-6. | Henderson JM, Tkach J, Phillips M, Baker K, Shellock FG, Rezai AR. Permanent neurological deficit related to magnetic resonance imaging in a patient with implanted deep brain stimulation electrodes for Parkinson's disease: case report. *Neurosurgery*. 2005 Nov;57(5):E1063; discussion E1063. | Larson PS, Richardson RM, Starr PA, Martin AJ. Magnetic resonance imaging of implanted deep brain stimulators: experience in a large series. *Stereotact Funct Neurosurg*. 2008;86(2):92-100. Epub 2007 Dec 12.

# VA Secretary Supports Veterans with Parkinson's Disease Exposed to Agent Orange

The Department of Veterans Affairs recently added Parkinson's disease to the growing list of illnesses presumed to have been caused by Agent Orange, the toxic defoliant used widely in Vietnam.

The proposal will make it substantially easier for thousands of veterans to claim that an ailment, such as Parkinson's disease, was the direct result of their service in Vietnam, thereby smoothing the way for them to receive monthly disability checks and health care services from the department.

The new policy will apply to some 2.1 million veterans who set foot in Vietnam during the war, including those who came after the military stopped using Agent Orange in 1970.

The shift underscores efforts by the secretary of veterans affairs, Eric Shinseki, a retired Army chief of staff and a Vietnam veteran himself, to reduce obstacles to sick or disabled veterans' receiving benefits. The department has come under sharp criticism from Congress and veterans groups for long delays in processing disability claims.

The veterans department already recognizes more than a dozen conditions as being presumptively connected to Agent Orange exposure in Vietnam, including Hodgkin's disease, prostate cancer and Type 2 diabetes.



“We must do better reviews of illnesses that may be connected to service, and we will,” Shinseki added. “Veterans who endure health problems deserve timely decisions based on solid evidence.”

Agent Orange, named after the color-coded band on storage drums, was the most common herbicide used in Vietnam to clear jungle canopy and destroy crops. It contained one of the most toxic forms of dioxin, which has since been linked to some cancers.

***Additional information about Agent Orange and VA's services and programs for veterans exposed to the chemical are available at [www.publichealth.va.gov/exposures/agentorange](http://www.publichealth.va.gov/exposures/agentorange).***

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[www.parkinson.org](http://www.parkinson.org) or [www.youngparkinsons.org](http://www.youngparkinsons.org)

To view the Webcast of the October 2009  
Young Onset Parkinson Conference,  
visit [www.parkinson.org](http://www.parkinson.org).



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# Community Connections



Back row: Eric Jackson, Chris Larson and Ty Atteberry; Front row: Nadia Romero, Ellen Chuzmir, Shannon Sullivan

Chris Larson, Nadia Romero, Ty Atteberry, Shannon Sullivan

Ty Atteberry, Home Depot Employee, Eric Jackson, Alfredo Campos

**T**his past October, volunteers from the National Parkinson Foundation, University of Miami and Medtronic joined together to help three families impacted by Parkinson's disease. With generous support from Home Depot, volunteers spent a weekend helping with home repair and yard clean-up projects.



**Medtronic**  
When Life Depends on Medical Technology

Ellen Chuzmir of Florida, who was diagnosed with Parkinson's disease more than 20 years ago, was one of the individuals helped by this project. "I was amazed — I thought they were just going to install grab bars in my hallway, and 48 hours later I had a new front door, a new oven and refrigerator, a freshly painted front entrance, and many other long overdue home repair projects. I told my husband they are angels with hammers."

NPF sends a special thank you to all of the volunteers, especially the team from Medtronic for dedicating an entire weekend to this special volunteer effort; Home Depot for their generous donation of supplies; and Carol Goldman from ParkOptimist, a NPF chapter in South Florida.

***For more information about partnering with NPF to volunteer in your community, contact Kay Houghton at 305.243.8145 or e-mail [khoughton@parkinson.org](mailto:khoughton@parkinson.org).***



## First Prize Winner of the NPF Digital Photo Contest:

Whitney Spivey submitted this photo of Col. Pat Jackson, who has Parkinson's disease, and his wife Norma Jackson preparing for a 4th of July cookout at their farm in Madison County, VA. The Jacksons have owned the farm since 1978.

# Support NPF to Improve Care and Lives

## Receive Income for Life, Immediate Tax Deduction and Help the Fight Against Parkinson's Disease!

A charitable gift annuity is one of the most popular ways to support the National Parkinson Foundation's (NPF) mission while receiving an annual income and other tax benefits. A charitable gift annuity is simply an agreement between you and NPF: you agree to make a current contribution of cash or appreciated securities; in exchange, NPF agrees to pay you a specified annual income to one or two beneficiaries for life. The payout rate is determined by the age of the beneficiary(ies) — see table below.

	ONE BENEFICIARY		TWO BENEFICIARIES	
	AGE	% RATE	AGES	% RATE
	50	4.4	50-50	3.8
	60	5.0	60-60	1.3
	70	5.7	70-70	5.2
	80	7.1	80-80	6.1
	90+	9.5	90-90	8.3

*This illustration is not professional tax or legal advice; consult a qualified tax advisor about your specific situation. Some state laws may restrict payment rates.*

### Benefits:

- Fixed, secure payments to you (and loved one) at an attractive rate that is partially tax free, for life
- An immediate tax deduction
- Possible estate tax savings
- Knowledge that you are improving the lives of people with Parkinson's disease today and into the future

**For more information, contact Kathleen Wiedemer, Vice President, Chief Development Officer, at 305.243.1061 or [kwiedemer@parkinson.org](mailto:kwiedemer@parkinson.org).**

**SAVE THE DATE:  
SUNDAY, FEBRUARY 21<sup>ST</sup>, 2010**

## THE 53<sup>RD</sup> ANNUAL NPF GALA FOR HOPE

JOIN US THIS YEAR AS WE CELEBRATE MEMBERS OF THE PARKINSON'S COMMUNITY AND THE HOPE THEY BRING TO PATIENTS AND THEIR FAMILIES.

COCKTAILS AT 6:00P.M., WITH DINNER AT 7:30P.M.  
FOLLOWED BY DANCING TO THE RENOWNED  
STEVEN CHASE ORCHESTRA AT  
THE MANDARIN ORIENTAL/BRICKELL KEY



*For Individual Underwriting and Corporate Sponsorship opportunities, please contact Kay Houghton at 305.243.8145 or at [khoughton@parkinson.org](mailto:khoughton@parkinson.org).*

## JOIN ONE OF OUR FREE ONLINE "ASK THE EXPERT" FORUMS

For detailed, step-by-step instructions for registering and logging into the forums:

1. Visit [www.parkinson.org](http://www.parkinson.org)
2. Click on "Discussion Corner"
3. Click on "How To Use The Discussion Corner Forums" or contact [webmaster@parkinson.org](mailto:webmaster@parkinson.org)

### Ask the Doctor:

A team of Parkinson's specialists answers medical questions about Parkinson's disease.

### Caregivers Forum:

A place for caregivers to find support and address their concerns.

### Ask the Speech Clinician:

A team of experts answers questions regarding speech and swallowing.

### Pregúntele al Médico:

Ramon L. Rodriguez, MD contesta preguntas con respecto a la enfermedad de Parkinson y materias relacionadas.

# parkinsonREPORT

NATIONAL PARKINSON FOUNDATION

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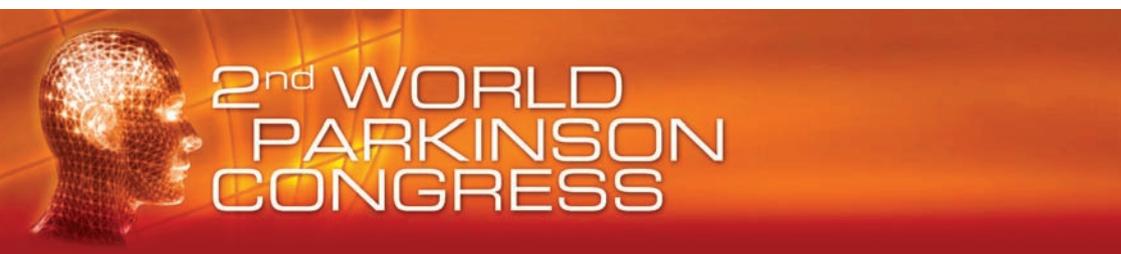
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## Glasgow, Scotland, UK September 28 – October 1, 2010

Join more than 3,000 international clinicians, researchers,  
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living with Parkinson's at this global Congress.  
This novel meeting, supported by more than 125 Organizational  
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has representatives from all areas of the Parkinson's community  
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and innovation in science, care and advocacy.

### Important Dates:

November 2009 – Abstracts Submission Opens  
January 2010 – Registration Opens

Learn more at [www.worldpdcongress.org](http://www.worldpdcongress.org).

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*Improving care, Improving lives*

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