



## Optimizing Levodopa Therapy

By Mahesh Padmanaban, MD, and Cindy Zadikoff, MD, MSc

**S**ince its discovery in the 1960s as a therapeutic option for dopamine delivery

in Parkinson's disease, levodopa has been the gold standard of therapy, providing excellent symptomatic control. As PD progresses, however, patients can develop motor complications, including motor fluctuations and dyskinesias.

Motor fluctuations are characterized by alternating periods of symptomatic control in response to medication, followed by wearing-off periods when symptoms reemerge. Dyskinesias are characterized by uncontrollable writhing movements that typically occur when medications are working at their best. These fluctuations are caused by characteristics of the drug itself as well as characteristics of the disease, including its duration and the progressive degeneration of brain areas affected in PD.

The future of optimizing levodopa therapy lies in minimizing the fluctuations associated with the current formulations of oral carbidopa/levodopa (Sinemet). Delivery of oral Sinemet is pulsatile rather than continuous—medication levels rise immediately after a dose is taken and then fall until the next dose. In long-standing or advanced PD, patients have good symptomatic control when medication levels are adequate and then experience wear-off when levels fall. Unpredictable absorption from the stomach also plays a major role in the duration and degree of benefit from each dose of oral Sinemet. Over time,

patients need to increase the frequency of immediate-release Sinemet to avoid wear-off.

Previous extended-release formulations of Sinemet, such as Sinemet CR, were less advantageous than the immediate-release formulation. They did not improve wear-off time and were not absorbed in the gut as reliably, so dosage had to be increased as much as 30 percent to achieve the same response. Few movement-disorders physicians routinely prescribe Sinemet CR for waking hours.

Many new modalities for more continuous delivery of therapeutic levels are being explored, including new extended-release formulations. Several new delivery options, including nonoral methods, have recently been made available, and others are on the horizon.

In January the FDA approved Rytary, a carbidopa/levodopa capsule with a combination of immediate- and sustained-release pellets. Its onset of benefit compares favorably with the immediate-release Sinemet, and it remains within therapeutic range much longer. A recent trial showed that Rytary had longer on time (symptomatic control) and shorter off time than immediate-release Sinemet without causing or increasing troublesome dyskinesias—and that it allowed for a reduction in the number of daily doses. It is hoped that patients can take Rytary less frequently than Sinemet while maintaining the same duration and degree of benefit.

Also recently approved is Duopa, a gel containing carbidopa/levodopa that has been used

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## Optimizing Levodopa Therapy

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successfully in Europe since the 1990s. Northwestern participated in both the open-label and the double-blind, placebo-controlled studies that led to Duopa's approval by the FDA. The drug is delivered through a portable pump (pictured above) worn by the patient; the pump is connected to the small intestine via a tube inserted by a physician. Since delivery bypasses the stomach, problems associated with levodopa absorption from the stomach are avoided. This method allows the brain to receive a continuous level of levodopa. Promisingly, studies in advanced patients have shown reduced off time and longer on time without troublesome dyskinesia.

Other nonoral methods of levodopa delivery under exploration include subcutaneous injection and inhalation. Currently subcutaneous delivery of apomorphine (also known as Apokyn) is an established form of rescue medication for off periods in advanced PD patients. The drug is delivered through self- or caregiver-administered injections as needed. An infusion form of this subcutaneous delivery is widely used in Europe, and it is hoped that studies of the infusion form will soon begin in the United States. CVT-301 is a form of levodopa delivered via an inhaler, such as is used for asthma. This approach could benefit those for whom injections are scary or technically difficult, although those with preexisting

## SAVE THE DATE

*Northwestern Medicine's Parkinson's Disease  
and Movement Disorders Center*

*National Parkinson Foundation  
Center of Excellence*

## Annual Patient and Family Symposium

*"The Latest Information  
on Parkinson's Disease"*

**Saturday, October 10**

**8 a.m.-12:30 p.m.**

**Northwestern Memorial Hospital  
251 East Huron Street, Chicago  
Third floor, room A**

**To register**, please call Northwestern  
Memorial Hospital's Health Resources and  
Physician Referral Service at 312-926-8400.

**For more information**  
[www.parkinsons.nm.org](http://www.parkinsons.nm.org)

lung conditions may not be suitable candidates. Currently undergoing clinical trials, this medication is not yet available commercially.

It is exciting that new drugs and drug-delivery methods are available or under investigation so that we physicians can give our patients more options for maintaining symptom control and thus improving quality of life.

# Second City Actors Entertain PD Group

**M**ore than 40 Parkinson's patients were encouraged to "take serious emotions and blow them up" with comedy as actors from Chicago's famed Second City improv group made a guest appearance at a support group meeting at Northwestern Memorial Hospital in March.

The session was more than a brief escape from the cares of dealing with PD. It was a reminder that frequent laughing can help moderate disease symptoms.

"Improv comedy cultivates focus, improves communication, reduces stress, and promotes feelings of acceptance and compassion," said Parkinson's Center director Tanya Simuni. "All of these issues are significant contributors to daily function in a Parkinson's patient."

"I never want to stop having fun," commented attendee Alice Gollan, a PD patient who recently retired from performing as a standup comedian herself.





# Motivation and Learning

By Maggie Morrissy, MEd

**T**he benefits of exercise for people with Parkinson's disease are well established—but “just do it” doesn't work as a motivator for everybody. Finding motivation to exercise is neither easy nor static. You may find that your motivation ebbs and flows throughout the year, month, even day. There are many ways to increase motivation, however, and to promote lasting commitment to exercise and physical activity.

To be intrinsically motivated by an activity is to find it enjoyable, challenging, or satisfying for its own sake. Not many people will say they enjoy exercise for the sake of exercise, but those who do are more likely to exercise consistently over time. Intrinsic motivation can be fostered by finding the right exercise program and environment. Look for an environment with options so you can choose an exercise suited to

your needs, interests, and abilities and that challenges you in a safe and appropriate manner. Intrinsic motivation also can be fostered by adding a social component; exercise companions help hold you accountable. You might find a friend you enjoy exercising with regularly or a trainer, exercise physiologist, or instructor. Group exercise classes are also excellent settings for getting support and feeling challenged to overcome barriers to exercise.

Unexpected setbacks, such as a seasonal illness, may happen, but a well-prescribed exercise program can be reformatted to your ability and needs at the time. To gain a sense of control that can help promote intrinsic motivation, it is important to believe that you have the capacity to advance your fitness goals.

Research indicates that intrinsically motivated exercisers are not only more likely to stick

with exercise programs over time but also may experience improved motor learning. In the study “Motor learning benefits of self-controlled practice in persons with Parkinson's disease,” published in 2012 in *Gait & Posture* (35:601–05), researchers tested a group of participants with PD on their ability to learn a new motor task under conditions of self-controlled feedback. The participants performed better when allowed to receive feedback when they wanted it. By controlling when feedback is received, learners gained a sense of autonomy and control of their exercise, which increased motivation and improved learning for new motor tasks.

*Maggie Morrissy is the lead exercise physiologist at the Rehabilitation Institute of Chicago Fitness Center.*

# Movement Disorders Clinical Trials

For information on participating in any of the following movement disorders clinical trials, please call 312-503-0755.

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## ALL MOVEMENT DISORDERS

### **Movement Disorders Center's Biorepository**

The objective is to create a repository of blood (DNA, plasma, and iPS-derived-cell lines) and skin samples for use in future research. Patients with any movement disorder and first-degree relatives of PD patients, as well as healthy controls, are being recruited. Participants with genetic mutations and a family history of movement disorders are especially important. Participation requires one clinic visit a year.

*Funded by the Paul Ruby Foundation for Parkinson's Research.*

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## EARLY PARKINSON'S DISEASE

### **G-PPMI (Parkinson's Progression Markers Initiative)**

The objective is to identify genetic markers of PD and their effect on PD progression. The study is recruiting PD patients, non-PD patients with a first-degree relative of Ashkenazi Jewish descent and with PD, and non-PD patients with a first-degree relative with a LRRK2 or SNCA genetic mutation.

The duration is five years, with 12 visits.

*Funded by the Michael J. Fox Foundation.*

**STEADY PD 3** The objective is to establish the efficacy of the drug isradipine to slow the progression of PD disability. The study is recruiting PD patients diagnosed within the last three years and currently taking fewer than four hypertension medications but not PD medication. *Funded by the National Institute of Neurological Disorders and Stroke and the Michael J. Fox Foundation.*

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## ADVANCED DISEASE

**AMANTADINE** The objective is to look at potential benefits of the FDA-approved medication amantadine on freezing of gait. Patients will be required to be on and off medication. Participation involves four clinic visits and one telephone call over 11 weeks. *Investigator funded.*

**KYOWA** The objective is to look at the potential benefits of the FDA-approved medication Istradefylline on dyskinesias and motor fluctuations associated with levodopa therapy. Participation consists of seven clinic visits and one telephone call over 12 weeks. *Funded by Kyowa Hakko Kirin Co.*

**CIVITAS** The objective is to investigate the efficacy and safety of CVT-301 (levodopa inhalation powder) in PD patients with motor response fluctuations. Duration is 12 weeks, with four visits. *Funded by Civitas Therapeutics.*

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## FATIGUE

**SELEGILINE** The objective is to measure the efficacy of the FDA-approved medication Selegiline in reducing fatigue symptoms in PD patients. Participation requires four clinic visits over 12 weeks. *Investigator funded.*

Northwestern Medicine's Parkinson's Disease and Movement Disorders Center  
National Parkinson Foundation Center of Excellence

# Patient and Family Symposium

Saturday, June 6 ▪ 8:30 a.m.-12:30 p.m.  
Northwestern Medicine Lake Forest Hospital  
660 North Westmoreland Road ▪ Lake Forest, Illinois

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**8:30 a.m. REGISTRATION AND CONTINENTAL BREAKFAST**

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**9 a.m. WELCOME**

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**9:05 a.m. OPENING ADDRESS: "The scientific rationale for a clinical trial with isradipine in early-stage Parkinson's disease"**

D. James Surmeier, PhD, chair and Nathan Smith Davis Professor, Department of Physiology, Feinberg School of Medicine

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**9:35 a.m. NEW TREATMENT PIPELINE**

Cindy Zadikoff, MD, MSc, associate professor of neurology, fellowship director, and movement disorders neurology clerkship director, Northwestern Parkinson's Center

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**10:15 a.m. BREAK**

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**10:30 a.m. COGNITION AND PARKINSON'S DISEASE**

Ian Katznelson, MD, neurologist, Northwestern Lake Forest Health System

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**11:15 a.m. NONMOTOR SYSTEMS OF PARKINSON'S DISEASE**

Danny Bega, MD, movement disorders neurologist, Northwestern Parkinson's Center, and instructor, Feinberg School of Medicine

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**Noon PHYSICIAN QUESTION-AND-ANSWER PANEL**

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**12:30 p.m. EVALUATION**

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**To register**, please call Northwestern Memorial Hospital's Health Resources and Physician Referral Service at 312-926-8400.

# Parkinson's Center Offers Art Therapy and Yoga to Promote Well-Being

**C**oping with stress and everyday problems is challenging, though usually manageable. But throw in a diagnosis of Parkinson's disease and the scales can tip dangerously. Physical symptoms multiply, and emotional health can nosedive. Poor emotional health can weaken the body's immune system, increasing susceptibility to colds and other infections.

The body's physical condition supports or wreaks havoc with mental stability; conversely, emotions affect medical health. Many aspects of health can be directly affected by the totality of emotional, mental, social, spiritual, and behavioral factors. Substantial evidence shows that improvement in psychological functioning and quality of life may ease such Parkinson's symptoms as stiffness and freezing of limbs, reduced speaking volume, swallowing difficulties, insomnia, micrographia (the abnormally small, shrinking handwriting associated with PD), depression, and social isolation. Many PD patients don't have every symptom; taking steps to improve health begins with an honest assessment of symptoms and problems that could benefit from support.

The National Institutes of Health, the American Academy of Family Physicians, and the Parkinson's Disease Foundation emphasize improving healthy habits, including mind and body activities. Among the free activities that the Parkinson's Disease and Movement Disorders Center provides to promote well-being are art therapy and yoga. The programs are made possible through the support of Jack

Art therapy, 1-2 p.m. • Yoga, 2-3 p.m.  
2nd, 3rd, 4th Tuesdays • No cost

Northwestern Prentice Women's Hospital  
250 East Superior Street, Chicago  
Room Q

Free parking at Huron/St. Clair Self-Park

Register with Pamela R. Palmentera, LCSW,  
312-503-4397, ppalment@nmff.org

Ehrlich and the L & R Anixter Foundation and NPF Moving Day.

## **Emotional and Physical Benefits of Art Therapy**

*By Leslee Goldman, board-certified registered art therapist*

Many people have a misconception of who can participate in art therapy. No previous experience with art

materials or art making is needed—just a willingness to try something new. In fact, working outside one's comfort zone might itself help offset the effects of Parkinson's.

Art therapy is simple. Each participant chooses from the variety of art materials offered. Sometimes a bit of prompting or questioning is needed to determine what to use or how to begin working. Different materials can be tried and changes made. The choices are limitless, and everything can be reworked. An art therapist is available for technical help and support. Problem solving is a natural part of art making, and developing this skill strengthens memory, attention span, and eye-hand coordination. The process of art making provides an outlet for emotional expression that often comes more easily than words alone. The end product—a drawing, painting, or sculpture—may result in a new frame of reference for seeing problems and solutions.

In addition, being creative among people with similar life concerns spontaneously provides social and emotional support. Participants remark that strong feelings, such as anger, depression, anxiety, and irrational thoughts, slip away. Sitting back to

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assess what was created stimulates discussion among group members about similarities of experiences, reactions to symptoms, and solutions. Feelings of isolation and thoughts about being the only one experiencing a problem are reduced. Those who have more experience with PD can help those newly diagnosed by suggesting questions to ask doctors, recommending options, and averting surprises down the road.

The physical benefits of engaging in art making are also notable. Manipulating clay can reduce stiffness in fingers and encourage fine-motor skills, such as grasping and button fastening. Micrographia, the shrinking handwriting characteristic of PD, can be addressed with a variety of materials. Drawing or painting on oversized paper is a great way to increase arm swing and exercise large arm muscles. Whatever the artist's skill level, tremors are reduced or temporarily disappear.

Recent studies have begun to look at why heightened creativity seems to coincide with Parkinson's disease, but the results are inconclusive. Many think that those who are no longer working have more time to explore artistic hobbies. Others suggest that the dopamine increase occurring during pleasurable activities offsets the decrease in midbrain dopamine-secreting neurons in those with PD. Whatever the reason, the motivation to create appears to

encourage interest in other aspects of life, stimulate imagination, develop a feeling of control, reduce the physical symptoms of PD, and increase feelings of well-being.

## Healing Body, Mind, and Spirit with Yoga

*By Paul Weitz, MA, certified advanced Thai yoga therapist*

Yoga has become popular internationally as a form of exercise, but many people are intimidated by some of the difficult postures. In truth, with a little help yoga can be adapted and practiced effectively by anyone. "To do yoga, one only needs to be able to draw a breath," said Tirumalai Krishnamacharya, one of the greatest yoga teachers of the last century.

The aim of yoga is to find balance. Balance applies to every layer of our being, including keeping up with changing physical needs, tending to the mind and emotions, and finding a deeper sense of connection with ourselves and the world. In yoga philosophy, the body, mind, and spirit work synergistically to bring about healing and transformation. Balance is not a static state, however, but an ever-changing daily dance of self-care. With the unpredictability of Parkinson's, achieving balance can be challenging, but practice can lead participants to adjust for each day skillfully and appropriately and to take charge of their own healing.

An effective yoga practice consists of movements, postures, and proper breathing that rely less on complexity or difficulty than on quality of attention and willingness to try. A well-balanced yoga practice emphasizes stretching, gently mobilizing and lubricating the joints, and coordinating breath and movement—all followed by proper relaxation.

Many postures can be done in a chair or with props to assist in balance and accessibility. Combined with deep breathing and energizing movement, the effects include







greater blood circulation, the stimulation of healthy organ function, and the strengthening of the nervous system. With consistent practice, the nerve pathways can become more resilient and responsive, allowing for better coordination and balance between body and mind. This may not be a cure-all for PD, but it can greatly improve quality of life, reduce depression and anxiety, and bring about a feeling of well-being.

With all of these benefits, something else good is happening: As the integration between the body, mind, and emotions increases, a feeling of deep connection—to self, to others, and to life—naturally arises. The true meaning of yoga is union—the realization that the inner light or soul is one and the same as the light that shines in all. With a disease like Parkinson's, just a glimpse of this connection can help to overcome feelings of isolation and separateness. Recognition that others experience similar struggles and challenges can bring greater understanding and compassion for self and others. To feel that we are a part of something greater is healing for the heart and mind.

All who wish to benefit only need to begin where they are: simply begin in one place and take a step to a better place. Progress is measured not only by the body's getting better but also by the cultivation of greater peace of mind and peace in the heart, even in the face of difficulty.

## Online Radio Programs Give Doctors' Tips

**T**wo weeks of radio programming in which Northwestern Medicine physicians from



more than a dozen specialties share their research news and tips for

healthy living can be accessed anytime at <http://nmradio.nm.org>.

The programming, which originally aired on Northwestern Medicine Radio in December, includes interviews with Parkinson's Center director Tanya Simuni about the latest in Parkinson's research and with neurosurgeon Joshua Rosenow about surgery options for treating Parkinson's.

In addition, Terrance Peabody, chair of orthopaedic surgery, talks about Northwestern's new Center for Comprehensive Orthopaedic and Spine Care; Leonidas Plataniias, director of the Robert H. Lurie Comprehensive Cancer Care Center, talks about advances in cancer treatment; and thoracic surgeon Ankit Bharat discusses the new lung transplant program. There are dozens of other segments in the programs.



## Danny Bega, MD

### Movement disorders neurologist and instructor in neurology

**A**s a movement disorders neurologist at the Parkinson's Disease and Movement Disorders Center, Danny Bega focuses on the care of patients with forms of parkinsonism, including PD, Huntington's disease, Wilson's disease, tremors, dystonia, tic disorders, and gait disorders. Bega also performs botulinum toxin injections for various conditions, including migraines, as well as deep-brain stimulation evaluations.

Board certified in neurology, Bega practices at the Northwestern Memorial Hospital neurology clinic. He is also the associate residency program director in the Feinberg School's Department of Neurology and will soon be an assistant professor.

Bega's research concerns complementary and alternative therapies for movement disorders, among other topics. He is also involved in several clinical trials about PD and other movement disorders. He is often asked to give talks and presentations at conferences and meetings.

Bega completed medical school and an internship at Rush University and a neurology residency at Harvard's Massachusetts General Hospital and Brigham and Women's Hospital in Boston. He then completed fellowship training in movement disorders at Northwestern, along with completing a master's degree in clinical investigation at Northwestern's Graduate School.

# Get a Better Night's Sleep

By Roneil Malkani, MD

**S**leep disturbances are common in Parkinson's disease. Fragmentation of sleep, reported by about 60 percent of people with PD, can lead to feeling fatigued or sleepy during the day, in turn affecting quality of life.

The problem can have several causes, including stiffness, tremors, rigidity, and the frequent need to urinate. Many of these can be related to Parkinson's disease. Treatment for sleep disturbances depends on properly identifying the underlying causes. It is important to talk to your doctor to help sort out the problems so that the most appropriate treatment can be determined.

Some people wake up for no apparent reason. To get a better night of sleep,

- Create an environment conducive to sound sleep, such as a dark and quiet room. (Nightlights help to reduce the risk of falls if you do get up.)



- Avoid caffeine and alcohol close to bedtime.
- Engage in moderate-intensity exercise three to four days a week. Though untested as a sleep enhancer in people with PD, exercise has shown promise for improving sleep quality in older adults. (Talk to your doctor before beginning an exercise program.)
- Get out of the bed and do a relaxing activity if you have difficulty falling asleep or you wake up and are unable to get back to sleep within

20 to 30 minutes. This can help reduce some of the frustration that comes with lying in bed and not being able to sleep. Examples of relaxing activities include watching a TV program or reading a book or a magazine (but avoid anything intense or exciting). Go back to bed when you feel sleepy.

If you still have difficulty getting a night's rest, it is important to talk to your doctor about medications or other strategies that can help.

*Neurologist and sleep medicine specialist Roneil Malkani is assistant professor of neurology at the Feinberg School of Medicine.*

# Maximizing My Quality of Life with Parkinson's

By Paul Ruby, founder, Paul Ruby Foundation



Keynote speaker Paul Ruby with Parkinson's Center director Tanya Simuni (left) and Leslie Post-Weissinger, Northwestern Memorial Foundation's philanthropy director, at the center's 2014 patient and family symposium

**S**o, how do I maximize my quality of life? I guess you could say that my motto is, I try not to worry about what I can't do and focus my energy on what I can do and where I can make a difference.

Being involved with the process of curing Parkinson's disease has been incredibly rewarding and definitely therapeutic. I truly feel that I get more back than what I put into fighting the disease.

My advice is to stay active. Keep doing the things you enjoy doing. Try not to get frustrated

when doing things that used to be easy becomes challenging.

I can't change the fact that I have PD, but I do feel I have the ability to slow its progression.

Medicine has significantly improved my quality of life. I went the first several years after diagnosis determined to go as long as I could without taking any meds. It took me a while to fully understand how to balance the pros of quality of life against the side effects of meds. I am an advocate for listening to your doctor. When he or she says meds will improve your quality of life, take the meds!

Exercise helps to make me stronger and improves my endurance and posture. I'm less rigid and more stable. I am also happier and more confident when I exercise. About 18 months ago I discovered Rock Steady Boxing, and now I'm hooked. Rock Steady provides a great workout, and the camaraderie is motivating. We push each other, and rather than commiserate about our situations, we challenge each other to be the best we can be.

Eat right, stay positive, and surround yourself with positive people. Although I will never say I am grateful for having PD, I am certainly thankful for all of the people I have met and friends I have because of PD.

Don't settle about medical care—seek out the best available to you. At Northwestern Memorial Hospital, we are extremely fortunate to have some of the best clinical care anywhere in the world. When you combine this with the amazing research happening here, you can be confident you are in good hands. It's important to stay informed and take advantage of the available resources. This includes advancements in medicine,

# THANKS TO PAUL RUBY AND HIS FOUNDATION

clinical trials, programs that affect quality of life, and programs for care partners.

As Olympian and former bicycle racer Davis Phinney says, “We can’t control that we have Parkinson’s, but we can control how we live with Parkinson’s. Many in our community are simply waiting for an answer ... waiting for a cure. But as we wait, we decline. In my view, waiting is too passive. ... My challenge to our Parkinson ‘tribe’ is to explore the myriad of ways in which we can take back ownership of our health and well-being right now. In so doing, we regain a sense of hope, joy, and purpose in our daily lives—which is the key to living well today with Parkinson’s.”

Never lose hope. Scientists will cure our disease. But don’t sit back and wait for things to change or dwell on what Parkinson’s has taken from you. Fight back, control what you can of your own destiny, and focus your energy on making a difference in your life now.

Challenge yourself to be the best you can be.



We wish to extend our heartfelt appreciation and gratitude to the Paul Ruby Foundation for Parkinson’s Research. In 2007 Paul Ruby, a grateful patient of the Northwestern Parkinson’s program, started a fundraising foundation that has

had a tremendous impact on the patients and families we serve in the clinic. The Paul Ruby Foundation for Parkinson’s Research focuses on educating Illinois families about the disease and raising funds to support research toward a cure. Paul and his foundation have made a tremendous impact on our research program. The foundation has supported 10 projects bringing in more than \$550,000. We will remain forever grateful to Paul and PRF for their efforts.

These contributions have driven Paul’s positive attitude and ability to live with Parkinson’s disease, allowing him to have a wonderful quality of life. In his keynote speech at the Parkinson’s Center’s October 2014 patient and family symposium, Paul encouraged attendees to stay positive. We had an opportunity to honor Paul for his achievements and presented him with a plaque of appreciation.

Philanthropy is essential for the clinic to continue to offer high-quality care to the patients and families we serve. It supports our efforts in patient care, education, and research. For more information about philanthropic opportunities, please contact Leslie Post-Weissinger at 312-926-0450 or [lpstwei@nm.org](mailto:lpstwei@nm.org).

# Northwestern University Parkinson's Disease and Movement Disorders **Support Group**

**The support group meets the first Tuesday of the month.**

**10:30 a.m.-2 p.m.** (come to any or all sessions)

10:30-11:15 a.m.	<b>Dance therapy</b>
11:15 a.m.-noon	<b>Physical therapy/exercise</b>
Noon-1 p.m.	<b>Lunch and discussion groups</b> for patients and caregivers
1-2 p.m.	<b>Monthly presentation</b> led by the Parkinson's Center's Pamela R. Palmentera, LCSW, and Trupti Patel, MPP

- Learn about movement disorders and related topics.
- Share experiences and receive support and understanding.
- Meet new people, relax, and have fun.

Northwestern Memorial Hospital  
251 East Huron Street, Chicago  
Feinberg Pavilion  
Third floor, room A

*Free parking at Huron/St. Clair Self-Park*

For more information: Pamela Palmentera, 312-503-4397,  
ppalment@nmff.org, or Trupti Patel, 312-503-3320,  
trupti@northwestern.edu

## PRESENTATION TOPICS

*April 7*

### **"Art and the Brain"**

Leslee Goldman, ATR

*May 5*

### **"LSVT: Speech Therapy for Parkinson's Disease"**

Jennifer Nebel, MS, CCC-SLP

*June 2*

### **"PWR and Exercise"**

Maggie Morrissy, MSEd,  
RIC Fitness Center

*July 7*

### **"Meditation and Mindfulness"**

Pamela R. Palmentera, LCSW

*August 2*

No session

*September 1*

### **"Ask the Pharmacists"**

ASCP Foundation Parkinson's  
disease pharmacotherapists

*October 6*

### **"Acupuncture as an Adjunct Treatment"**

Ania Grimone, MS, LAc, CH,  
Northwestern Memorial Hospital

## Classes Geared to Mature Adults

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**Northwestern Medicine's Osher Center for Integrative Medicine** offers a full line of fitness classes appropriate for mature adults, as well as wellness classes. The classes are small, the instructors well trained, and individual modifications are offered as needed.

Fitness classes include **Gentle Yoga, Yoga in a Chair, Yoga for Osteoporosis, Zumba Gold, Pilates, Low-Impact Aerobics, Nia, Tai Chi, Tai Chi for Parkinson's Patients, Strength and Balance for Mature Adults,** and **Total Body Resistance Training for Mature Adults.**

Wellness classes include **Going Gluten-Free, Guided Mindful Meditation, Qi Gong: Meditation through Movement, Mind-Body Pain Management,** and **Tobacco Cessation Group** programs.

New classes start every quarter. The spring session will start on **Monday, April 6.** Registration is from **February 2** through **May 1;** fees will be prorated for late registrants. For more information or to register, please go to <http://classes.nmh.org/listing/all> or call 312-926-8400.

## Clinic in Lake Forest Accepts Movement Disorders Patients

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**T**he Rehabilitative Services Department of Northwestern Medicine Lake Forest Hospital has offered a Parkinson's Disease/Movement Disorders Clinic since August 2014. All of its patients meet with the multidisciplinary clinic's entire team—occupational therapists, physical therapists, and speech-language pathologists—and then are evaluated by professionals from each of the disciplines before an individualized care plan is created.

Among the Movement Disorders Clinic's resources is Lee Silverman Voice Therapy, designed for people living with Parkinson's disease. The goals of the four-week LSVT program include not only improving voice quality and loudness for better communication but also improving the safety and quality of walking—walking faster and with bigger steps, improving balance, and increasing trunk rotation. All Movement Disorders Clinic therapists are LSVT certified.

A recent Movement Disorders “graduate” entered the clinic using a cane, her activities limited by fear of falling. Parkinson's disease had started to affect her favorite leisure activity—fishing—and caused difficulty with navigating public transportation. When she left the clinic, she had put her cane away and walked with confidence. Her balance and stability had improved; she could successfully navigate the Chicago transit system alone, and she returned to fishing.

While outcomes vary, the Movement Disorders Clinic tailors treatment to each patient. To schedule an appointment, first obtain a referral from a neurologist or other physician and then call 847-535-8000. If you have questions about the Rehabilitative Services Department, please call 847-535-8060.

Parkinson's Disease and Movement Disorders Center  
710 North Lake Shore Drive, 11th floor  
Chicago, Illinois 60611-3006  
www.parkinsons.northwestern.edu



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Northwestern Medicine's Parkinson's  
Disease and Movement Disorders Center  
is proud to be a National Parkinson  
Foundation Center of Excellence.

#### CONTACT

312-503-4397 or 312-695-7950

#### CLINICAL TRIALS

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PDclinicaltrials@northwestern.edu

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or email lists or to update your address.

We also welcome your comments and letters.

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## Calendar

### **PARKINSON'S AWARENESS MONTH ACTIVITIES**

**Sunday, April 19,**

**10:30 a.m.-1:30 p.m.**

CJE SeniorLife-Weinberg

Community for Senior Living,  
Deerfield

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

[/livingwellwithpd](http://livingwellwithpd)

**Sunday, April 26, 2-5 p.m.**

Westminster Place, Evanston

[www.parkinson.org/moveit](http://www.parkinson.org/moveit)

### **EARLY DIAGNOSIS AND YOUNG-ONSET MEETING**

**Saturday, May 9, 9-10:30 a.m.**

Northwestern Memorial Hospital

251 East Huron Street, Chicago

Third floor, room F

[ppalment@nmff.org](mailto:ppalment@nmff.org)

### **ANNUAL PATIENT AND FAMILY SYMPOSIUM**

**Saturday, October 10,**

**8 a.m.-12:30 p.m.**

Northwestern Memorial

Hospital

251 East Huron Street, Chicago

Third floor, room A

312-926-8400

### **NATIONAL PARKINSON FOUNDATION'S**

#### **MOVING DAY CHICAGO**

**Sunday, October 18,**

**9 a.m.-1 p.m.**

Grove 2, Lincoln Park, Stockton

and LaSalle Drives, Chicago

(near the Lincoln Park Zoo)

[www.movingdaychicago.org](http://www.movingdaychicago.org)

312-505-7602