About the Program

Dance for PD® is a unique collaboration between the Mark Morris Dance Group (MMDG) and the Brooklyn Parkinson Group (BPG), a chapter of the National Parkinson Foundation (USA). MMDG/BPG started offering free dance classes for people with Parkinson's in 2001, after BPG's Executive Director Olie Westheimer approached MMDG with the initial idea for a class. Since 2005, the two organizations have expanded the Dance for PD® program into more than 40 other communities around the world by engaging participants in Dance for PD® master classes, training teachers through intensive workshops, and nurturing relationships among organizations so that ongoing classes are available to local communities.

The Dance for PD® teaching approach is built on a fundamental premise: professionally-trained dancers are movement experts whose knowledge is useful to persons with PD. Dancers know all about stretching and strengthening muscles, and about balance and rhythm. Most importantly, dancers know about the power of dance to concentrate mind, body, and emotion on movement; they use their thoughts, imagination, eyes, ears, and touch to control their bodies. Dance for PD® teaching artists integrate movement from modern and theater dance, ballet, folk dance, tap, improvisation, and choreographic repertory to engage the participants' minds and bodies, and create an enjoyable social environment that emphasizes dancing for dancing's sake. The dance class is an aesthetic experience that focuses on developing artistry and grace while addressing such PD-specific concerns as balance, flexibility, coordination, gait, social isolation, and depression.

The method has been presented at the International Congress for Parkinson's Disease and Related Disorders in Berlin (2005), the World Parkinson Congress in Washington, D.C. (2006) and at Neuroscience 2008 in Washington D.C. Articles about the class have appeared in USA Today, Neurology Now, The New York Times, and Topics in Geriatric Rehabilitation among other publications, and the class has been featured on NPR's All Things Considered, PBS Frontline, PBS NewsHour and CBS. Dance for PD® was featured as a model program at the 2010 Annual Conference of the Society for the Arts in Healthcare (SAH), and featured at the 2011 Parkinson's Unity Walk. The program’s teaching points have been condensed into the DVD entitled Why Dance for Parkinson's Disease? (2009), which won first prize at the 2010 SAH Film Festival.

In addition to hosting a weekly class for 50 participants at the Mark Morris Dance Center in Brooklyn, NY, MMDG/BPG have offered Dance for PD® classes to communities in San Francisco, Oakland, Berkeley, Louisville, Ann Arbor, Seattle, Urbana-Champaign, Toronto, Edinburgh, London, Auckland, and Tel Aviv, among many others. Such medical centers as Evergreen Hospital (Seattle), Jewish Hospital/Frazier Rehabilitation Institute (Louisville), Carle Hospital (Champaign-Urbana), and Beth Israel Deaconess (Boston) have hosted demonstration classes in their facilities.

Since 2007, MMDG/BPG have sponsored more than 10 teacher training workshops, which have led to the replication of Dance for PD® classes in 17 states throughout the United States, and in Canada, Germany, Israel, Italy, India and the United Kingdom.

John Heginbotham, David Leventhal and Misty Owens, the program's founding teachers, work with Ms. Westheimer, Dr. Ivan Bodis-Wollner, Director of the Parkinson's Disease and Related Disorders Clinic, Center of Excellence, at Kings County Hospital and the program's Medical Director, and Eva Nichols, MMDG's Outreach Director, to develop the curriculum, design specialized training programs, and coordinate the development of new classes. A 23-member advisory board provides guidance and stewardship. More available at www.danceforpd.org.

For more information, please contact Eva Nichols at eva@mmdg.org or call 646.450.DFPD (3373).
In October, a small number of Brooklyn Parkinson Group members enter the brand new Mark Morris Dance Center to take their first class.

Program Timeline

2001

MMDG/BPG present a demo class for neurologists at the International Congress on Parkinson’s Disease (Berlin, Germany). Three pilot classes conducted, including two in the UK.

2005


2007


2009

Four training workshops. DVD wins Society for the Arts in Healthcare film festival. Expansion & replication grants from SAH and Mellon. Website launches. Segment about program airs on PBS NewsHour.

2011

MMDG/BPG begin weekly Dance for PD classes in Brooklyn. Dance for PD featured in NY Daily News “Spotlight on Great People”.

2004

MMDG/BPG present demo class at World Parkinson Congress, Washington, D.C. Brooklyn class continues to grow. BPG’s Sing for PD begins.

2006

Training workshops in Brooklyn, Berkeley and London. Six affiliated satellite programs start in California, South Carolina and Illinois. Dance for PD presents at Society for Neuroscience in Washington, D.C.

2008

More than 40 affiliated satellite programs in 7 countries now running. Manhattan class launched. Advisory Board holds first meeting in Brooklyn. Six training workshops scheduled.
Research: Considerations, references and directions

Dance classes for persons with Parkinson’s Disease have expanded rapidly since the first Dance for PD class was offered at the Mark Morris Dance Center in 2001. In the U.S. and abroad more than 45 classes based on the Dance for PD model exist, and many more are in development.

Tango and salsa classes for persons with PD are available in many cities, as well as special PD classes in Nia®, a movement practice that incorporates dance, martial arts and yoga, and Let Your Yoga Dance®, which combines dance and yoga. Some physical and occupational therapists and teachers of special exercise classes for persons with PD incorporate dance-based movement sequences and skills in their work.

Tango and Dance for PD classes have begun to stimulate research, an indication that some within the medical community see potential benefits of exploring dance in relation to effects it may have on persons with PD. However, some movement disorder specialists and researchers voice skepticism. They argue—correctly—that dance is a difficult modality to study for many reasons.

Among these reasons is the inherent difficulty in standardizing the creative and multiform nature of a dance class. For acceptable validation of an intervention, the medical community expects to see outcome measures emanating from studies based on “double blind” placebo controls. This model of medical therapeutic intervention is nearly impossible to implement for dance.

The accepted and usual physical therapy (PT) model compares one type of PT therapy or exercise (intervention) with another. The American Academy of Neurology finds benefits of PT are small and not sustained after therapy is discontinued. A review article by leading physical therapists acknowledges shortcomings in methodology of all trials they reviewed, and lays out considerations that would improve methodology. It appears possible to develop a well-designed PT study, and comparison of dance with a PT intervention is at least feasible.


2 Samyra H.J., Keus, PT, MSc, M Munneke, PT et al. Physical Therapy in Parkinson’s Disease: Evolution and Future Challenges, Mov Disord 2009:24;1-14
One important issue for the Dance for PD staff is how to study potential benefits of DFPD without turning dance classes into clinical studies. The joy of dance movement and the rapt attention that students exhibit in a DFPD class are considered paramount. There is concern that the assessment of outcome measures related to dance could diminishes the mental and emotional impact of DFPD classes on students.

Nevertheless there are strong arguments in support of research on the effects of all kinds of dance on persons with PD, not least of which is that the subject is exceedingly interesting to an interdisciplinary group of scientific experts.

Research on Dance for PD fits into a fruitful and growing body of research on dance and the brain, as evidenced by the book *The Neurocognition of Dance: Mind, Movement and Motor Skills*[^3^], “The Neuroscience of Dance,” an article in *Scientific American Magazine*[^4^], increasing numbers of international, multidisciplinary workshops and symposia on dance, choreography and science[^5^] and the work of Patrick Haggard (a member of our Advisory Board), Beatriz Calvo-Merino, Daniel E. Glaser and Ivan Hagendoorn[^6^] to name a few of the most prominent scientists now interested in the study of dance. More knowledge of the benefits of dance for persons with PD should add to general understanding of what happens in the brain when people dance.

The more important argument for the PD community is that a body of research on the effects of dance on persons with Parkinson’s Disease will help foster more dance classes, and will help current and future classes find ongoing funding support.

Recent additions to ever increasing quotes about Dance for PD classes:

“I love these classes. I just love them.”

“I think what happens in the class is, that persons forget they have PD and so they just dance.”

“I came to the dance class because I finally said to myself, this is it. I have to get my life going again.”

“This class is taught by real dancers. We really dance. It’s hard.”

“I am closing my practice as of March 30, 2011 so I will be able to attend the dance classes. In my mind this is the only good thing to come from closing my practice.”


[^5^]: For links to dance and science symposia, run a Google search for “dance+symposium+neuroscience”.

[^6^]: For articles by the scientists mentioned above, run a Google search on their names.
The intensity of interest and pleasure in dance evident in these quotes (there are scores more like them) does not seem to be captured in the standard questionnaires (instruments) used to assess quality of life effects of exercise interventions on persons with PD. This is one of the findings in the two pilot studies of Dance for PD that have been completed in the Brooklyn classes.

Based on 10 years of experience, the Dance for PD staff believes one potentially important and useful line of research would be to develop measures that capture the enthusiastic allegiance and compliance participants exhibit in response to dance classes.

The popularity of the classes and wonderfully positive responses from participants are striking. We believe it is important to understand and ferret out more information about the benefits of DFPD classes that elicit these responses.

With that in mind, Dance for PD staff have asked members of its Scientific Advisory Council to design a questionnaire prototype that could be used as an evaluative tool to measure the effects of the class on participants’ quality of life. This tool would be used in tandem with quantitative measures like UPDRS and balance tests.

The following page lists references to existing Dance for PD research.
Selected research on the arts and aging, dance and Parkinson’s Disease


►A two-year study of 300 persons, average age of 80 years, half of whom participated in weekly participatory arts programs, half did not. At one- and two-year follow up assessment, the participatory arts group reported “better health, fewer doctor visits, and less medication usage, more positive responses on mental health measures and more involvement in overall activities.”

II. Westheimer, O. Why Dance for Parkinson’s Disease: Topics in Geriatric Rehabilitation 2008; (2)24 :127-140.

►Rationale of dance classes for persons with PD and the perceived benefits of students in the Brooklyn classes as expressed in responses to Oregon Health Sciences questionnaire for chronic illness, and to interview questions developed by Misty Owens, founding Dance for PD teacher, for her MFA in Dance.


►Review of articles on benefits of dance with emphasis on benefits of partnered dance, especially tango. Found improvement in Berg Balance Scale, Timed up and Go, improvement walking backward, stride length. “In summary the benefits of dance for those with PD appear to be if large enough magnitude to be clinically relevant.” General finding that dance meets most if not all exercise for persons with PD.


“Short-term effect of dance on motor control in Parkinson’s disease patients: Preliminary results.” Heiberger, L., Maurer, Ch, Amtage, F., Schulte-Monting, J and Kristeva R. Neurological Clinic, University of Freiburg, Freiburg, Germany

►Improvement in UPDRS scores on rigidity, hand movements, finger taps and facial expression.
V. Let’s dance! Parkinson’s: A Novel Dance Approach. Effect on gait and quality of life. Sarah H. Ying et al. Parkinson’s Movement Disorders Center, The Johns Hopkins University School of Medicine, Baltimore, MD.

► Improvement in small sample size on Berg Balance Scale, Timed Up and Go test, UPDRS, several gait measures, velocity and cadence within a four-month period.


Olie Westheimer, MA1, Cynthia McRae, PhD2, Claire Henchcliff, MD, D.Phil3, Arman Fesharaki, MD4, Matt Avitable, PhD5; Muhammad Javaid, MD, Sofya Glazman, MD and Ivan Bodis-Wollner, MD6.
1Executive Director, Brooklyn Parkinson Group, Brooklyn, NY; 2Counseling Psychology, University of Denver, Denver, CO; 3Neurology, Weill Cornell, New York, NY; 4Post-Doctoral Research Fellow, Vancouver Eye Care Centre-VGH, Vancouver, British Columbia; 5Center for Scientific Computing, SUNY Downstate, Brooklyn, NY and 6Neurology, SUNY Downstate, Brooklyn, NY.

► Improved gait and resting tremor; positive data derived from structured interview data that were not captured in PDQ-39 Quality of Life questionnaire.
FAQ

General Questions

How do you get persons with PD to dance? I can’t imagine that.

Dance is one of the most enjoyable of human activities. Persons with PD dance because it feels good. It’s fun. Initiating and sustaining sequences of movement does become much more difficult with PD. Persons with PD often discover ways that help them move, such as walking close to another person to feel or “catch” their pace, stepping over lines on the floor to start moving, listening to a rhythm while moving or thinking about a movement before and during the movement sequence. These same techniques enable persons with PD to dance. In fact dancing is often easier for persons with PD than everyday movements. Very similar techniques enable dancers professionally trained in ballet and modern dance to perform movements that are very difficult to learn and execute. In Dance for PD® classes, persons with PD dance together with their dance leaders, using all of these techniques.

The dance class sounds like an interesting idea, but are there any long lasting effects?

To date only a few studies exist on the effect of Dance for PD® classes and on the effect of learning tango. They suggest short term and small, but statistically meaningful benefits to such measures as gait, balance tremor, walking backwards. Whether these benefits are also clinically relevant—that is, whether they actually improve what is measured in a person’s everyday life, over some long period of time, is not yet known. It is most likely that just as professional dancers must dance consistently to maintain skill, so must persons with PD. However, the consistent attendance of persons in the flagship Dance for PD® class in Brooklyn suggests that the classes may have a long term beneficial effect in that so many persons who start the classes make them a part of their weekly activities. Many studies (and common sense) suggest
that physical activity and remaining engaged with other persons are key to a healthy life and to successfully dealing with any chronic disease.

What is the difference between your DFPD classes and dance therapy?

The difference is one of intent. Dance therapy is a methodological formalization of the inherent potential of dance to positively affect emotions, conceived as a type of clinical intervention. Dance therapists help patients impaired by trauma and disease, address their psychic pain mainly by expressing their emotions through improvisational, non-structured movement, and also by talking about their experience of dance and their emotions. Dance for PD® is an adaptation of dance pedagogy to make accessible to persons with Parkinson’s Disease. It employs techniques and aesthetic considerations that form the core of formal dance education. Dance for PD teachers share specific knowledge with their students. They encourage learning to dance as a means to heighten attention and interest in moving beautifully to the best of one’s ability, the effect of which, for dancers and for persons with PD, is a profound feeling of joy and accomplishment.

Is there any research on the benefits of DFPD?

Yes, a little bit (see FAQ 2), and new studies on the effect of dance on persons with PD are being conducted by neurologists, professors of dance, physical therapists, occupational therapists and neuroscientists. They involve determining specific, measurable physical benefits as compared to the benefits of another form of exercise and/or the effect of dance on an individual’s quality of life, and understanding brain physiology involved when someone with PD dances. There is currently considerable interest in the effect of any kind of exercise on persons with PD, and considerable interest among persons with PD in Dance for PD classes. These two developments suggest that much more research on the benefits of dance will be conducted.

What makes a good Dance for PD dance leader?

The basic requirements are professional dance training, dance experience and love of teaching dance. Not all experienced, professionally trained dancers who teach dance make good Dance for PD leaders, however. The best Dance for PD leaders are attracted to Dance for PD because they enjoy knowing and working with older people, consider themselves teachers (not geriatric activities directors, exercise trainers or health care professionals) and are as interested in learning from their students with PD as in teaching them. Many persons with the basic requirements to teach Dance for PD and interest, go on to other professions. Some current excellent Dance for PD leaders earn their living through physical therapy, administration, dance therapy, cognitive neuroscience, engineering, yoga instruction, and other professions.

How do you get persons with PD to come to your classes?

Some persons with PD already know that they would love to learn to dance, or they have danced before and are excited by the opportunity to dance with others. These persons often help get a Dance for PD class started in their communities. To engender interest among persons with PD and caregivers who cannot imagine a Dance for PD class, conversation about the classes—often many conversations over time — with someone whom they respect or viewing a class is key (click here for a short video sample of
Dance for PD classes). For someone with PD all sorts of impediments prevent attendance—general discouragement, depression, apathy, transportation difficulties, fear of failure, shyness among others. Often enthusiasm and continued encouragement about giving the classes a try are successful responses to these real problems.

What do I need to know about PD in order to teach a class?

In order for Dance for PD classes to develop as dance classes, rather than classes geared to addressing PD symptoms, the only information about PD that the original founders of Dance for PD classes were given was that persons with PD have a hard time moving their bodies and are easily fatigued. Close attention and observation of each student are important. One of the first things dance leaders observe is how PD affects movement differently depending on the student, and on the day, even the time during a particular class. In Dance for PD training workshops dancers now learn a body of basic information about PD that helps them teach, such as the way PD can affect balance, stride or standing up, among others. This knowledge enables teachers to make use of dance techniques that may help with these kinds of movements as they are used during the class.

Is music the key to why people with PD can dance?

Music is not the key to why people with PD can dance, but it is an important key to helping them move, and one which many persons with PD discover on their own. Moving is not the same thing as purposeful dancing. Other elements assist in dance, in particular, ways to control movement through thought, imagery, and use of sensory stimulation such as focus, touch and imitation. Dance for PD training workshops cover these and other elements that are particularly useful in guiding persons with PD through a dance class.

What do DFPD classes offer persons with PD besides exercise?

It will take years of research in a number of disciplines to answer this question based on scientific methodology. Observationally and based on the scant research to date, it appears that Dance for PD classes become important to persons for a number of reasons, including that what they learn helps them think about movement; friendships develop; and learning to dance adds meaning and purpose to life. Persons with PD and caregivers can share in an activity not related to PD care.

Do you provide classes for beginners and other more advanced classes?

No, everyone dances together in one class, no matter their experience. Some persons in the flagship Brooklyn Dance for PD class have attended since the beginning; persons new to Dance for PD regularly join our classes. Dance is an activity that allows for individual variation and expertise. Dance for PD leaders learn to remind students to adapt any sequence taught in the class to fit what they are able to do at the moment.
From people with Parkinson’s

I have trouble with my balance. How does the class adapt to people who have this challenge?

Dance for PD leaders remind everyone in class that they should adapt anything in the class that seems too challenging. Caregivers and aides of persons with balance problems dance nearby to help if need be, by holding hands, bringing over a walker, helping someone to sit down. Dance leaders and their assistants in class get to know the students in their classes so that they can anticipate those who might need extra help with balance and offer help. Participants with balance problems who want to work at the barre may feel more comfortable dancing in-between two pieces of equipment so that they hold on to each barre with one hand. Or a chair might be the solution. Everyone pays attention to helping persons with balance problems do what they feel comfortable with, in a safe manner.

What if I get tired during the class?

Chairs should always be available for persons. If someone gets tired, a dance leader, assistant or caregiver brings over a chair, or the person who is tired walks to one nearby with someone to assist if need be.

I’ve never danced before. Is this class for me?

If you would have never danced before and want to try, a Dance for PD® class is for you. There are no requirements whatsoever to join a Dance for PD® class, only the desire to dance. Persons dance with walkers, with wheelchairs, and on their own in Dance for PD® classes. Often to everyone’s surprise, including the person in a wheelchair, he or she stands up and dances, with or without assistance.

What do doctors think about the class?

Some neurologists think that the classes are great, not because they have experienced a Dance for PD® class themselves, but because their patients who attend tell them about them. Many neurologists now do know about Dance for PD® classes, and keep flyers about local classes in their offices.

Do I need my doctor’s permission to take this class?

At the flagship class in Brooklyn, no permission is required. In some classes permission is required.

How do I know if the teachers are qualified to work with people like me?

A dance leader who has attended a Dance for PD® workshop has gained information about how to teach Dance for PD® classes, and has some experience teaching a class. If you like your Dance for PD® teacher, feel comfortable when in class, and enjoy it, that is perhaps an even more important qualification. Many leaders of Dance for PD® become so interested in teaching that they attend more than one workshop in order to receive more training. A Dance for PD certification program is in development and will be available for teachers who have had broad experience in teaching DFPD classes.
May I come to class alone, or do I have to come with someone who dances with me?

Many persons with PD come alone. If you feel that you may need extra help (see answers to the first two questions above), then you should come with someone. Often participants in the class help one another, for instance, holding hands while dancing across the floor. In a Dance for PD® class, everyone is attentive, everyone helps to the extent they can and everyone cares about everyone else. The connections made between and among persons in a Dance for PD® class, are often noted as one of many reasons persons like the classes and gain a positive feeling from them.

From administrators and organizations

I want to start a class for my PD group. How do I get started?

The first step, in many instances, is to expose your group to what a Dance for PD class looks and feels like so your members can start to understand what happens in a class, and whether they’re interested in participating. Many groups set up an initial demo class, either with Dance for PD founding teachers or local teachers who have already trained with us, to which they invite members of their group. If this is not possible, you could give people a sense of the class by showing the informational video “Why Dance for Parkinson’s Disease” that we produced and can send you for this purpose. After that, you’ll probably want to evaluate the level of interest among the members of your group. A simple questionnaire can tell you how many people might be interested in participating in an on-going dance class, what the best day and time would be for them, whether they would be willing to contribute to cover costs, and what area of town might be easiest for them to get to. Once you establish the level of curiosity and interest, you’ll need regular teachers, a space, a musician (if you have the resources to involve one), and some funding to cover artist expenses and space rental. If you don’t already have a dance instructor in mind, we may be able to help you find one, so please contact us. Often it’s easier at this point to consider an institutional collaborator who can provide one or several of these components. A local dance company, for example, might be willing to have several of their teaching artists train to teach, and they may be willing to provide a dance studio and musical resources, and even point you in the direction of possible funders. Each community has different dynamics and resources, so we recommend contacting us for further guidance.

How do I make sure the teacher and the studio have enough insurance?

We recommend that teachers and studios are insured, but since Dance for PD is a dance class, not a therapy or medical treatment, the umbrella liability that dance studios already have should be sufficient to cover the organization and the teacher if that teacher is an employee of the organization that’s presenting the class. In situations where teachers are independent contractors, they should carry their own liability insurance. Our program has recommended provider information can forward this information to you upon request.

I’d like to offer these classes for free, but I have no funding. Where should I look for sponsorship?
Although funding environments differ from city to city, there are a variety of ways you can seek out sponsorship for the class. Remember that sponsorship can often appear “in-kind”—a donation of space for two hours a week can be the equivalent of a $60 weekly sponsorship, since you save on rental. If you are a Parkinson’s group, collaborations with arts organizations, arts presenting organizations, senior centers, or YMCAs often yield sustainable results, since you are able to tap into the development resources a larger organization can offer. If you are an independent teacher or arts organization, your local Parkinson foundation or organization may be willing to underwrite some of the costs, or at least help with publicity and insurance. Local colleges and universities might also be interested in sponsoring the class, especially if the program engages undergraduates or graduate students as observers, assistants or researchers. Although hospitals and medical centers have rather strict funding protocols, classes in several cities are partially funded by health care organizations. Pharmaceutical companies, insurance companies, and local wellness-based businesses have funded classes. And don’t overlook the power of private donations—someone who loves the class and has a stake in its success may be able to contribute to cover expenses, and may be able to rally friends or colleagues behind the cause.

How do I find a musician for the class?

The answer depends on the style of dance you are teaching. Experienced, versatile dance musicians who can play music that’s appropriate to your class are sometimes difficult to find outside major cities. Dance studios that use live music know how to contact them, or may have suggestions. Colleges and universities that have dance departments have a list of musicians they regularly work with. They may also have student musicians who are willing to play for the class for a student rate. Because music like jazz standards and show tunes work well for classes in which participants are familiar with this kind of music, don’t overlook pianists who play at local bars or lounges—they are versatile and have a large catalogue of singable music. In any case, you may have to think out of the box: we’ve used percussionists, cellists and electric violinists in our classes around the world, and these can all work well if the musician is well prepared about what style of music you’d like in your class. We will be adding a resource page for musicians as this site expands.

What is the best space for this kind of class?

Dance studios are ideal locations for the class, although any space at least 25 x 35 will work so long as the floor is smooth and even, and covered either with wood, linoleum, marley or thin commercial carpeting. You should be sure that there is easy access to restrooms, the space and bathrooms are wheelchair accessible, there are enough removable chairs to accommodate the group, and that the space is accessible to easy parking and public transportation if available. Dance for PD classes are offered in dance centers, community centers, medical building multi-purpose rooms and church halls, among other places.

People want to come to the class, but transportation is an issue. Do you have any suggestions?

Locating the class in an easily accessible and safe neighborhood, and scheduling the class at a non-rush hour time, is helpful. The location should have easy parking, and should be within reach of public transportation if it exists in your area. Carpooling may be another way to help participants get to the class; you may need to appoint a transportation coordinator to help create carpooling teams.
What can I learn from one of your workshops?

Our introductory training workshops are open to administrators and group facilitators, as well as dance teachers. You’ll get a good overview of the program’s philosophies and methods, have a chance to hear from and speak with Parkinson’s neurologists and class participants with Parkinson’s, and learn more about how to start a class. In some of our workshops, we offer sessions on funding and class administration. You’ll also get to meet other facilitators who are interested in starting a class, and can share ideas and concerns.

Who provides supervision of the classes on site?

We recommend having a non-teaching coordinator on site to assist with registration and access and can address any concerns. In some cities, this coordinator is professional facilitator or social worker from a collaborating organization; in other classes, the Parkinson’s group leaders or members of the group’s executive committee act as liaisons. The coordinator, along with the teacher, should regularly check in with participants and field any suggestions, concerns or challenges. The coordinator and the teacher should communicate regularly to share information and address any concerns that participants raise in response to the class.

From interested dance teachers

I’ve been teaching for years. Can’t I just start this class on my own without your training?

Your experience will serve you well in the work, and you may very well be able to start on your own without much training. But even very experienced teachers who’ve attended our training workshops say how grateful they are to have the information and support we provide during our workshops before they start teaching dance classes for people with PD. Our training modules are designed to help you take what you already know through your experience as a teaching artist and apply it creatively to a class of people with Parkinson’s disease. Equally valuable, according to past workshop participants, is the opportunity to meet other current Dance for PD® teachers and hear their first-hand experiences about starting and sustaining a successful class.

I’m not used to working with live music. Do I really need it for my Dance for PD class?

Several of our affiliated classes are unable to find or afford a musician and have offered classes that are successful and enjoyable. But having a live musician in the room adds another layer of energy, input, spontaneity and fun to the class, and those of you who’ve ever danced to a live pianist or drummer in a class know how different it is than dancing to recorded music. As a teacher, a live musician in the room gives you ultimate flexibility over tempo and mood, and you can change on a dime. It also adds another creative person to the vibrant positive community that forms in a Dance for PD® class. In our Brooklyn classes, we sometimes feel that people actually come for the music and stay for the dance.
I want to start teaching this class, but I don’t know any Parkinson’s groups in my area. How do I make that connection?

We recommend that you contact us first. We may have contacts with Parkinson’s groups in your area, and can help you make the connection. If we don’t, we recommend that you research groups online and contact the facilitator directly.

What happens in your trainings?

We offer several different types of trainings. In introductory workshops, attendees will learn about general Dance for PD teaching methods and principles through a series of training modules designed by Dance for PD’s founding teachers and program developers. Participants will also hear basic information about PD, work with volunteer students from the PD community, and network with other teachers. For practicing teachers who have already taken the introductory workshop, professional development workshops will focus on further developing skills and knowledge about their work, and exchanging innovative practices and ideas, as well as specific concerns and successes. We try to keep our workshops information-packed, stimulating, and fun and offer them in several cities and at several times throughout the year to be as convenient as possible.

Do you offer certification?

A certification program is currently in development. The program will offer one advanced workshop a year for those teachers whose professional backgrounds and commitment reflect the highest level of quality and excellence. Teachers who earn certification agree to sign a licensing agreement and follow a set of guidelines to ensure close replication to the Flagship program. In return, certified teachers can use Dance for PD marks and promotion materials, and will have access to a variety of support resources including private, dedicated online areas, regular virtual conferencing, prime billing on this site’s class listing, relocation support, and special continuing education conferences.

How much will I get paid for teaching this class?

Teaching fees vary, depending on the resources available and the cost of living in each community. Although most of our teachers are professional teaching artists and need to be properly compensated for their experience and expertise, some teachers may start offering the class for no fee to get it launched, and may sustain this generous model for several months until enough funding becomes available. In general, fees range from $50-$100 per teacher per 60-90 minute class.

What kind of dance background do I need to teach people with PD effectively?

Teachers come from a variety of backgrounds, but most successful Dance for PD teachers have trained intensely in one or more dance forms, including ballet, modern, tap, classical Indian, flamenco, or jazz and are comfortable and experienced teachers in one or more of these forms. Many of our teachers have had careers as professional performers, and are able to bring that experience, and existing choreographic repertory, into their classes. Others are choreographers, use their imaginative processes to develop new material and structured improvisations for their classes. Good Dance for PD classes draw on a range of styles and materials so that the classes are as stimulating, diverse and imaginative as
possible, but we always encourage teachers to teach what they know, and to teach whatever that is with passion, clarity, warmth and humor.

Do I need insurance? Who provides coverage for me?

We recommend that teachers and studios are insured. A dance studio’s umbrella liability should be sufficient to cover the organization and the teacher if that teacher is an employee of the organization that’s presenting the class. Please confirm this with the studio before starting a class. In situations where teachers are independent contractors, they should carry their own liability insurance. Our program has recommended provider information can forward this information to you upon request.

From neurologists and scientists

Is there a scientific concept that informs your program and the classes it offers?

Yes. Dance for PD classes are based on methods that dancers use to enhance motor learning and the execution of complicated motor sequences. Motor learning is affected in PD. However the specific neurobiological links have not yet been established.

Have you done any research studies to support your work?

Yes. To date there are several pilot studies on Dance for PD (Brooklyn 2009, Freiburg 2010, Johns Hopkins 2010) that indicate benefits in some motor scores of the UPDRS and/or quality of life benefits. A number of studies of Dance for PD are in development in the United States and in England (Beth Israel Deaconess, Roehampton University).

Have you presented your work at medical or scientific conferences?


I’m interested in doing a study based on your class. Do you work with researchers? How would I go about contacting you about this?

Yes. Dance for PD does work with persons interested in conducting research on Dance for PD®. Please contact us for more information.

Who is the program’s medical advisor?

Dance for PD has a scientific advisory board whose Chair is Ivan Bodis-Wollner, MD, D.Sc., Director of the Parkinson’s Disease Clinical Center of Excellence sponsored by the National Parkinson Foundation in Brooklyn, NY.
Do people get injured in your class?

Since the first Dance for PD Class in 2001 no one in class has been injured, but a few persons have had falls. Persons were helped back on their feet and continued to dance.

From complementary practitioners and musicians

I’ve been teaching yoga for years. I have some people with Parkinson’s in my class now, and I’d like to get some pointers for working with them. Are your workshops applicable to me?

Yoga, like dance, can be beneficial to people with Parkinson’s, and many participants enjoy engaging in both activities. Our introductory workshops are open to practitioners from many movement modalities, including yoga, Pilates, and Feldenkrais. Although the focus of our workshops is on teaching a dance class, instructors from other disciplines will learn valuable information about how to adapt their own knowledge and teaching skills to the Parkinson’s community.

I’m a physical therapist who used to dance. Can I start teaching this class?

A physical therapy session and a dance class have very different but complementary approaches. The Physical Therapists who teach Dance for PD classes rely primarily on their dance backgrounds and approach the class as dance teachers, rather than as therapists. In this way, they create an artistic, musical experience that contrasts with and complements their PT practice.

I’m a dance therapist. How does your method differ from my training?

The difference is one of intent. Dance therapy is a methodological formalization of the inherent potential of dance to positively affect emotions, conceived as a type of clinical intervention. Dance therapists help patients impaired by trauma and disease, address their psychic pain mainly by expressing their emotions through improvisational, non-structured movement, and also by talking about their experience of dance and their emotions. Dance for PD® is an adaptation of dance pedagogy to make accessible to persons with Parkinson’s Disease. It employs techniques and aesthetic considerations that form the core of formal dance education. Dance for PD teachers share specific knowledge with their students. They encourage learning to dance as a means to heighten attention and interest in moving beautifully to the best of one’s ability, the effect of which, for dancers and for persons with PD, is a profound feeling of joy and accomplishment.

I’m a musician who’s been asked to play for a Dance for PD class. What do I need to know to make this class as successful as possible?

If you’ve never played for a dance class before, you’ll probably want to find one in your area to observe so that you have an idea of what’s required. Dance for PD classes use a variety of danceable music, and should be culturally specific and recognizable to the population you’re working with. Clear rhythm, melody and recognizable structure are particularly helpful in guiding people with Parkinson’s disease.
through dance movements. Dance for PD musicians might cull from popular standards, Broadway show tunes, well-known classical pieces, and other recognizable songs; for dance styles where drumming and dancing are closely intertwined, percussionists who do voice work would be ideal.
SELECTED PRESS

2-3  THE NEW YORK TIMES
     “GETTING THEIR GROOVE BACK WITH HELP FROM THE MAGIC OF DANCE” (AUGUST 25, 2007)

4-5  USA TODAY
     “DANCE CLASS ‘UPLIFTING’ FOR PARKINSON’S PATIENTS (NOVEMBER 12, 2008)

6  NEW YORK DAILY NEWS
     “MARK MORRIS DANCE CLASS AIDS PARKINSON’S SUFFERERS” (OCTOBER 23, 2007)

7-8  NATIONAL PUBLIC RADIO (BROADCAST TRANSCRIPT)
     “PARKINSON’S PATIENTS FIND GRACE IN DANCE” (DECEMBER 13, 2008)

9-10  AARP MAGAZINE
     “PEOPLE WITH PARKINSON’S DISCOVER THE JOY OF DANCE” (MARCH 13, 2009)

11-12  DANA FOUNDATION
     “DANCING BEGINS WITH A COGNITIVE ACT FOR PROFESSIONALS AND PARKINSON’S PATIENTS” (JAN. 2, 2009)

13-14  THE SEATTLE TIMES
     “DANCE CLASS HELPS PARKINSON’S PATIENTS USE MOVEMENT AS A STRATEGY” (JULY 29, 2010)

15-16  MJ FOX FOUNDATION REPRINT FROM BERKELEY DAILY PLANET
     “DANCE FOR PARKINSON’S DISEASE COMES TO THE BAY AREA” (JUNE 11, 2009)

ADDITIONAL MEDIA AND VIDEO LINKS ARE AVAILABLE AT WWW.DANCEFORPD.ORG.
Getting Their Groove Back, With Help From the Magic of Dance

By ROSLYN SULCAS
Published: August 25, 2007

David Leventhal, a member of the Mark Morris Dance Group, is teaching a combination from Mr. Morris’s “Three Russian Preludes” to a crammed class of dance students. “Mark made this for Baryshnikov,” he tells them. “Then I danced it. Now you’re the third people to learn it.”

The students laugh. They are not young, not lithe, not professional dancers. Most have Parkinson’s disease; several walk or stand with difficulty. But after watching Mr. Leventhal carefully as they copy his slicing arm movements, the group performs a commendable version of the sequence.

As improbable as it may seem to those familiar with the disease’s toll on motor functions — impaired balance, tremors, slowness of movement, rigidity — this dance class is not a toned-down therapy session. It is both physically demanding and artistically exacting. “Sharp, then soft,” Mr. Leventhal calls out as the students dance in the airy studio at the Mark Morris Center in Fort Greene, Brooklyn. “Like clouds across the stage.”

Exercise has long been considered beneficial for those with Parkinson’s, which is medically defined as a movement disorder caused at least in part by a loss of brain cells that release the nerve-to-nerve signaling chemical dopamine. But the daily physical difficulties patients experience, along with attendant isolation and depression, often result in a sedentary lifestyle and dependence on medication.

Such were the observations of Olie Westheimer, who in 2000 started a support group for Parkinson’s patients and their caregivers at the request of her husband, Dr. Ivan Bodis-Wollner, director of the Parkinson’s Disease and Related Disorders Center in Kings County Hospital Center and SUNY Downstate Medical Center in Brooklyn.

“I could see there was a mismatch between what was written about the disease — it’s not going to kill you, you have to live with it — and how treatment works,” said Ms. Westheimer, who is the outreach coordinator for the Parkinson’s center and has become a passionate advocate of dance as treatment for movement disorders. “What happens is that people aren’t living with the disease, they are defined by it, and their lives are a round of doctors’ appointments and therapy. Even a support group is part of that world, and I felt like they should be doing something else.”

Ms. Westheimer, who had seriously studied dance when she was growing up, also noticed that some
Parkinson’s patients were using techniques similar to dancers’ to master or memorize movement. “They would describe how they would put a hand on the wall or another person as a cue to turn, or play familiar music in their heads to get up, or start walking again if they froze. I thought, ‘They need to dance!’”

Soon after, she went to see Nancy Umanoff, executive director of the Morris company, and asked if there was a dancer interested in teaching Parkinson’s patients. “I said, ‘I can raise the money,’” Ms. Westheimer recounted. “She said, ‘We have the money.’”

Ms. Umanoff offered to provide not only a teacher and the space, but also a pianist, using part of the company’s allocation for community outreach. By 2003 the classes, initially once a month, had so grown in size and popularity that the director of education, Eva Nichols, suggested making them weekly. (They take a break over the summer. The next class starts Sept. 5.)

“It is altruistic on our part,” Ms. Umanoff said. “But what it does for us is give us a sense of engagement in the community in a very deep way, and that gives us greater strength as an institution. And as silly as it sounds, it feels good; the classes positively affect people’s lives. What’s better than that?”

Ms. Westheimer was clear from the start that she wanted a real dance class, and this has proved to be the crucial factor in the class’s popularity. “The most important thing is that people find joy in the movement and a sense of community just as in any dance class,” said Mr. Leventhal, who teaches alongside John Heginbotham, another member of the Mark Morris Dance Group, and Misty Owens, a faculty member at the school.

The classes, which begin seated to increase confidence in balance and stability, move from simple point-and-flex leg exercises to sweeping sequences across the floor. “People will stand up straight, walk with long strides with their heel hitting the ground and swing their arms — all things that are atypical of Parkinson’s,” said Carroll Neesemann, whose disease was diagnosed 11 years ago. “I don’t know if it happens to everyone, but I lose my symptoms when I’m there. And the pleasure of the experience is that it’s not a therapy session. They teach us as if we were any students, and that makes me feel good.”

The structure and content of the class have changed over time, Mr. Heginbotham said, “but the seated structure, the importance of the kind of catchy, familiar music that our pianist, William Wade plays, and the Mark Morris repertory — that has all been there from day one.”

“The big breakthrough,” he added, “was asking the class to improvise; that really freed people up in a serious way. And Misty has developed oppositional exercises that are incredibly successful, so we’re always trying to refine it.”

Ms. Owens, who has also introduced elements of tap dance to the classes, became so interested in the classes’ effects that her thesis for her master of fine arts degree focused on the topic.

“When we repeat a physical task over and over, our bodies learn it,” she said. “That’s called muscle memory, and it’s what dancers rely on. In addition, there is the phenomenon of mirror neurons, when your brain basically imprints what it sees over and over again. The dance classes are incredibly useful for people with Parkinson’s for these reasons. You can be bogged down by symptoms, but if you’ve done it enough, your body will remember the movement with the right cues.”

Neurologists are more cautious about the prospects for long-term improvement. “There is some scientific rationale that exercise helps people with Parkinson’s disease, but not that much,” said Dr. Michele Tagliati, director of the Parkinson’s Center at the Mount Sinai School of Medicine in New York, who is interested in the benefits of dance for Parkinson’s sufferers. “So mainstream neurology looks at it as a kind of alternative medicine with short-term benefits.”

The Morris Center now offers a second weekly dance class, run by a former dancer who has Parkinson’s, as well as a weekly music and singing class taught by Mr. Wade. Ms. Westheimer, Mr. Heginbotham and Mr. Leventhal presented their work at the 16th International Congress on Parkinson’s Disease in Berlin in 2005. In October, the teachers will give a workshop at the center that has attracted interest from neurologists in England and Norway.

“There is a constellation of symptoms that don’t respond to dopamine treatment, and we are still not very good at taking care of them,” Dr. Tagliati said. “We don’t know what dance does, exactly, for these, but it’s a complex and fascinating area of research. And the idea of having something that is considered an expression of beauty and youth and coordination to help those whose with an inability to move — well, it’s romantic.”
Dance class 'uplifting' for Parkinson's patients

By Mary Brophy Marcus, USA TODAY
November 12, 2008

Pity is not for the students with Parkinson's who study dance at the Mark Morris Dance Group in Brooklyn. Not when one student, well into his 70s, bent crookedly in his chair, lifts his arms gently skyward to the strains of Pachelbel's Canon in D Major.

Not when the dancers glide gracefully across the floor behind their instructor, professional dancer David Leventhal.

They're just plain classy-looking. No small feat when you consider they have the degenerative movement disorder Parkinson's disease, which is marked by imbalance, tremors and muscle stiffness.

Yet at Morris' renowned dance studio, pliés elicit pleasure in the participants, and waltzing helps oil rigid, trembling limbs.

Company founder and director Morris gave the OK for the classes half a decade ago when two of his instructors, Leventhal and John Heginbotham, along with Olie Westheimer, executive director of the Brooklyn Parkinson's Group and a dancer, proposed the idea.

Attendance began on the small side, Morris says.

"Five years later I'm walking past their studio, and I see like 40 people in there, and I realize it's the Parkinson's mob and all their caregivers, and I hear this live music, and I see all these different ages and disabilities dancing. It was gorgeous," says Morris, who is giving a lecture on dance and Parkinson's this weekend at the Society for Neuroscience's annual meeting in Washington, D.C.
Leventhal says the initial aim was to encourage movement and mostly to make something joyful happen.

"A lot people have said, 'It's so wonderful. You're healing people.' That's flattering, but it's a dangerous slope," Leventhal says. "We're careful not to make any medical claims about the class. Its strength is that it's outside the clinical arena. For those 75 minutes, you don't have Parkinson's. You're a dancer."

Unlike other classes at the school, students in the weekly class start seated. After warming up by performing basic moves that improve coordination, the dancers move to a ballet barre to focus on balance.

"We'll do ballet and tap exercises at the barre, then progress across the floor, getting participants to move fully in various styles — ballet, Broadway, tap — that integrate rhythm, spatial awareness and mostly fun," Leventhal says.

**Something for everyone**

Students range from the newly diagnosed to those with canes, walkers and wheelchairs. Moves are modified based on a dancer’s abilities.

Parkinson's disease occurs when the dopamine-producing cells in the brain that normally help muscles move become impaired or destroyed, says Stephen Lee, co-medical director of the Parkinson's Center at Dartmouth Hitchcock Medical Center. Patients may experience tremors, coordination troubles or muscular rigidity depending on the path the condition takes and how far advanced it is.

One in 100 people over age 60 live with Parkinson's, according to the Michael J. Fox Foundation for Parkinson's Research.

There's not much research in humans on how dance or other exercise helps on a physiological level, Lee says. Ivan Bodis-Wollner, professor of neurology and ophthalmology and director of the Parkinson's Disease and Related Disorders Clinic at SUNY Downstate Medical Center, says preliminary animal studies suggest exercise may promote positive chemical changes in the brain. "Movement like dance and exercise seem to be neuroprotective," says Bodis-Wollner, who has attended Morris' class.

Scientists at Washington University School of Medicine in St. Louis reported in one recent study that patients who took part in regular tango classes showed significant improvements in balance and mobility compared with those who did conventional exercise. Author Gammon Earhart, assistant professor of physical therapy, says participants also reported they enjoyed the social aspect of the dancing: "Their sense of well-being improved."

**Movement catches on**

"The dance class is uplifting," says Carroll Neesemann, 67, a commercial arbitrator from Brooklyn who has had Parkinson's for 12 years and has attended classes with his wife, Helena, since the beginning. "I know I'm not moving exactly straight up, but I feel symptom-free."

Last week, Leventhal and other Morris company members visited the English National Ballet in London, where they performed and shared details of their Parkinson's program with dancers. They've also helped instructors in San Francisco and Chicago launch similar programs.

Neesemann says the best thing about the class is to be able to move gracefully. "The ability to emulate some of the great dancers and reacquire a little bit of gracefulness is really valuable."
Mark Morris dance class aids Parkinson's sufferers

By Joyce Shelby
DAILY NEWS STAFF WRITER

Tuesday, October 23rd 2007

Before the start of the class at the Mark Morris Dance Center in Fort Greene, Maria Parker sat in a wheelchair and her home attendant, Ursula Bailey, stood close beside.

Parker's hands trembled uncontrollably. The frail, 67-year-old woman has Parkinson's disease and did not appear ready to dance.

But she was. The Mark Morris Dance Center offers weekly classes for people with Parkinson's, a chronic and progressive brain disorder.

"The people who stay active and involved are those who do best," said Olie Westheimer, founder and executive director of the Brooklyn Parkinson Group.

Her husband, Dr. Ivan Bodis-Wollner, heads the Parkinson's Disease Center at Kings County Hospital/SUNY Downstate Medical Center.

Westheimer, who has studied dance, came up with the idea for the class. The Mark Morris Center readily agreed to provide teachers, a pianist and a spacious studio.

Just before last Wednesday's session, Parker exchanged her wheelchair for a folding metal chair and sat in a circle with 23 other dancers. Most also had Parkinson's.

"Inhale, one, two, three, four. Slowly raise your hands. Now lower them. Imagine you are floating," dancer David Leventhal instructed as pianist William Wade played softly.

Parker followed every move. She gracefully lifted and lowered her hands and arms. She stretched her legs, pointed her toes, arched her back, leaned forward.

Over the next 75 minutes, teachers Leventhal, John Heginbotham and Misty Owens got their dance students out of their chairs and put them through their paces. There were demi-plisés at ballet barres, modern dance and tap steps, and marches across the studio floor to the strains of "Seventy-Six Trombones." The group also did moves from the company's own repertoire.

"When members of the class see us in performance, they see that they've learned some of the same movements," said Leventhal. "That gives them a sense of empowerment and a sense of community."

Parker, back in her wheelchair when the session ended, said, "The class is very nice. It helps me to go."

Gladys Medina, 72, of Jackson Heights, Queens, said she considers the class "the best thing I have found. It helps me a lot to control my body."

And Sam Tulman, 89, of Brooklyn Heights, delighted in both the dancing and "seeing all these people and seeing they are functioning."

For Robert Simpson, 58, of Manhattan, the class is transforming. He used to dance professionally.

"There was a point a couple of weeks ago when, before I knew it, I felt I was being lifted. It was a feeling of being transcended. It was so wonderful," Simpson said.
Parkinson's Patients Find Grace In Dance

by Jacki Lyden
Broadcast on All Things Considered December 13, 2008

For the past seven years, the studio of internationally celebrated choreographer and dancer Mark Morris has held a special class for people with Parkinson's disease.

They all dance together in an airy, light-filled building in Ft. Greene, Brooklyn — despite the inhibited movement that marks Parkinson's sufferers.

"People come in barely shuffling along," Morris says, "and the class sort of frees people. It's not a miracle and I don't know the science. I know that music, rhythm, repetition, encouragement makes everybody dance. You don't even know that you're moving."

Class Begins

On Wednesdays, the studio fills with older, less perfect bodies moving through space. Here, for an hour and 15 minutes, wheelchairs and canes are set aside.

Things begin with a loose circle around several instructors from the Mark Morris Dance Group. Misty Owens is an elegant, dark-haired dancer. She says Parkinson's dancers who've been coming for years find their bodies have more control, more understanding of movement — the muscle memory of a learned pattern.

"It's that moment of bringing all that together — not just being a human being with Parkinson's but being a human being in a live, vital, creative class, that I find is the explosive mixture that makes this a wonderful opportunity," Owens says.

There is one dancer who stands out in this group, a tall man in a sleeveless shirt. His upper torso dives backward and forward in constant, jerky circles. But he possesses a delicacy of quality, says one teacher. Robert Simpson was a dancer before he was diagnosed with Parkinson's in 2005.

"I'd just love to fly across the floor if I could," Simpson says, "cause I'm thinking I want to fly as much as I can while I can still do it. I just love the feeling of it."

Learning To Move With Parkinson's

Dancers refer to plies and pirouettes. Parkinson's dancers have another vocabulary to learn — and it's a cruel one. Ataxia: a loss of coordination. Festination: short, shuffling steps. Dyskinesia: involuntary body movements that can involve twisting and turning.
When a person has Parkinson's disease, a certain kind of nerve cell in his or her brain starts to die — the kind of cell that produces the chemical dopamine. Dopamine facilitates movement, so one of the biggest challenges for Parkinson's patients is to voluntarily initiate movement. Reaching out for a coffee mug can produce unpredictable results.

"It's one of the paradoxes in our understanding of Parkinson's that it's the voluntary decision to move which is the most impaired, and it's not the ability to actually perform the action," says Dr. Eve Marder, past president of the Society for Neuroscience.

"For example, a Parkinson's patient may be able to catch a ball if it's thrown at them, but they may not be able to decide to throw the ball," she says.

The idea is that dance takes the voluntary movements that are so difficult for people with Parkinson's and turns them into more instinctive movements. Movements made in reaction to a familiar tune on the piano, for example, or movements made by mirroring the teacher, or the memorized movements of a choreographed routine.

"Thus the Parkinson's patient may find themselves moving much more fluidly and much better than they would if they were alone in a room and just saying, 'Now I want to do those same movements,'" Marder says.

"When people come in, they're scared of moving because they've been told by doctors and professionals that they can't move," says David Leventhal, who has danced with the Mark Morris group for 12 years. "Somebody once said, 'You don't want to see what I'm doing; it's just not very pretty.' And I said, 'It's the contrary. It's beautiful because it's so unique. Nobody else is moving the way you're moving.'"

**Moving Together**

Still, the class is not a cure. There's not even scientific proof that dance helps the symptoms of Parkinson's. As the dancers get up from their chairs to begin moving across the floor, something happens. Leonore Gordon freezes, arrested in her movement. Akinesia.

"So I got frozen, which means sometimes the medication does not work with the Parkinson's," Gordon explains as she recovers. "So I can be doing great, running around all over the city, all over the place, then all of a sudden I can't move at all. So I couldn't enjoy the tap, which I usually love to do, and I can't do anything right now. I took extra medication a few minutes ago, so I may be able to be completely fine in a few minutes, but it's completely unpredictable, which is kind of the pain in the butt about Parkinson's. It's just so unpredictable."

Eventually the episode passes and Gordon gets up to join her fellow dancers. They've formed a community with each other — a microcosm as diverse as Brooklyn.

"You forget that you are with a group of people who have an illness," says Bobbye Butts, whose husband is in the class. "There's a kind of joy; there's a kind of jubilation. You get the feeling that everybody feels as normal as the next person."

Simpson's hands involuntarily grip the flesh of his arms — the skin on his bare shoulders turns pink from the grasp, but his face glows as he describes what it felt like to enter a studio again.

"It all kind of just swelled. Wonderful feeling from dancing, just felt wonderful. Felt a little bit like I found home again. I just love it," he says. "It's the thing I look forward to most, coming to class and hopefully flying across."

At the end of the class, the dancers march in an almost royal, Renaissance procession, as if they were lords and ladies at court. Grace, says one of the Morris dancers, is a visual representation of a whole set of feelings, confidence being one of the strongest ones. And on this floor, for an hour and 15 minutes, grace and confidence imbue the dance.
People With Parkinson's Discover the Joy of Dance

March 13 2009

By Rachel S. Cox

Grace, the physical kind at least, is a quality not often ascribed to people with Parkinson’s disease (PD), a neurological disorder that gradually robs patients of the ability to perform even the most basic movements without great difficulty.

But on Tuesday afternoons in a spacious studio of the Maryland Youth Ballet in Bethesda, Anne Davis, diagnosed with Parkinson’s eight years ago, recaptures a feeling she once knew well during a girlhood of horseback riding and ballet lessons. Urged on by choreographer and teacher Lucy Bowen McCauley, buoyed by the rhythms of familiar piano tunes, Davis dances, and afterward her pleasure and gratitude are palpable. The dance classes give her, she says, “a chance to really feel graceful again.”

PD patients have long recognized the power of music to liberate them, at least temporarily, from the disease’s debilitating constraints. Now a growing number of dance studios across the United States, including some of America’s most renowned, are offering classes on a regular basis for people with PD. Students and teachers alike report marked improvements not only in physical symptoms but also in dancers’ and caregivers’ states of mind. And the first controlled studies of dance and Parkinson’s disease—part of an ever-growing body of evidence that supports the therapeutic value of exercise for people with PD—bear out the empirical evidence.

Still, it seems an improbable coupling—dance, the realm of exquisite, extraordinary movement, and Parkinson’s, which results from the dying of brain cells that produce dopamine, a chemical messenger or neurotransmitter, critical to the initiation of movement. About 1 million Americans have the disease, according to the Parkinson's Disease Foundation, and roughly 60,000 new cases are diagnosed annually.

As the disease progresses, patients experience varying degrees of tremor, stiffness, slowness of movement, difficulty of speech, and impairment of balance and coordination. The standard medication, levodopa, is administered in combination with other drugs and alleviates symptoms but loses effectiveness over time. And levodopa can cause side effects called dyskinesias, involuntary movements like those sometimes displayed during public appearances by one of the most famous people with PD, actor Michael J. Fox.

But to David Leventhal, a dancer with the Mark Morris Dance Group (MMDG) who teaches Dance for PD classes in Brooklyn, the pairing is not at all paradoxical. Dancers and people with PD “really have a lot in common,” he says. “We share the challenge of bringing superconsciousness to movement. Neither can take a movement for granted.”

It was her intuitive recognition of this similarity that in 2001 led Olie Westheimer, a professionally trained dancer and now the executive director of the Brooklyn Parkinson Group, to approach MMDG about starting the first artist-taught dance classes for patients, their families and caregivers. “Dancers train their bodies, but they dance with their minds,” Westheimer says. “When dancers are given a complicated series of movements, they use cognitive methods and strategies to get it. Dancers have been doing it for hundreds of years. That’s useful. [And they know that] the purpose of teaching is to help people enjoy moving.”

Dance for PD classes have spread, through dancer-to-dancer training, to California, Massachusetts, Tennessee, Chicago, Toronto and the Washington, D.C., area. Financing and organizing generally comes from local nonprofits such as the Parkinson Foundation of the National Capital Area, which supports the Bethesda, Md.,
classes. MMDG will offer another teacher training workshop in March. Increasingly now, Westheimer works to educate the scientific community about the ability of dance and music to improve mobility and lift spirits. Last November Leventhal led a group of McCauley’s Parkinson’s dancers in a closed-circuit demonstration for neuroscientists at their annual convention in Washington.

Neurologist Kathleen Shannon, M.D., a Parkinson’s specialist at Rush University Medical Center in Chicago who strongly supports the benefits of dance, is designing a randomized, controlled study to compare changes in two groups of Parkinson’s patients. One group takes regular dance classes with artists from Chicago’s Hubbard Street Dance Group, and the other practices another form of exercise such as Pilates.

The first controlled study to examine the effects of dance classes on people with Parkinson’s, published in December 2007 in the Journal of Neurologic Physical Therapy, focused on the Argentine tango, a dance form that researchers at Washington University School of Medicine in St. Louis say targets problems specific to PD patients, such as balance, multitasking, moving backward, initiating movement and moving at a variety of speeds. In the results, patients who took part in regular tango dance classes showed significant improvements in balance and mobility when compared with patients who did conventional exercise.

Lead researcher Gammon Earhart, assistant professor of physical therapy, points to another, peripheral result of the study that she feels is nevertheless also very important. After the study ended, half of the participants in the tango lessons continued to attend classes, while all those engaged in conventional exercise classes dropped out. The key to maintaining healthy movement, Earhart says, “is to remain as active as possible. If they enjoy it, find it engaging, they’re motivated to do it.”

“PD is not a life-and-death disorder, it’s a quality-of-life disorder,” says Mahlon R. DeLong, M.D., a neurologist and PD expert at Emory University School of Medicine in Atlanta. “PD is initially and predominantly a movement disorder, but [it is] associated with behavioral, nonmotor aspects that become more and more prominent” as the motor aspects are addressed. Depression, for instance, is as common to PD as tremor is, he says, especially as the disease progresses and patients become increasingly self-conscious and isolated.

As a result, DeLong says, an alternative therapy like dance, which gets patients “engaged, moving, socializing, feeling their bodies, gets them out,” has tremendous value. “I’m very supportive,” he says. “I think it’s a wonderful thing for patients.”

To observe one of McCauley’s Dance for PD classes in Bethesda is to sense why this must be so. Preparing for class in the mirrored, yellow-walled studio, she unfolds metal chairs in a large circle, where her students will do their warm-up routines. The pianist settles herself at the piano. As students arrive, one parks her cane on the barre on the wall. The most debilitated is a thin, gray-haired man who wants to be identified as Ed. He hunches in his wheelchair, his arms and legs rising and falling spasmodically, as a helper rolls him into place in the circle, then sits down in the chair beside him.

Class progresses, like all dance classes, from small, supported movements—think of a ballet dancer at the barre—to larger, unsupported movements across the floor. McCauley and her assistant, company dancer Alison Crosby, use the language of ballet as students stretch out their legs in tendu and rond de jambe, first seated in their chairs, then standing by the barre, which Ed uses to pull himself out of his wheelchair, McCauley hovering nearby to help with balance.

Teachers enjoin students to “pull up” their posture to improve freedom of movement, deploy imagery to engage their imaginations and improvise movements of their own. In one favorite opening exercise, each PD dancer and care-partner says his or her name and demonstrates a gesture to go with it. On this January afternoon not long before Inauguration Day, Ed chooses to be the new president-elect. “Obama!” he shouts exuberantly and throws his arms in the air in a classic victory pose.

By the second part of class, when the piano breaks into a familiar tango and McCauley directs the dancers to walk in rhythm across the floor, faces are animated, smiles are spreading, cheeks are flushed and all but Ed swing their arms as they strut. Ed is deeply, and remarkably successfully, engaged otherwise. He is making his wheelchair dance.
Dancing Begins with a Cognitive Act for Professionals and Parkinson’s Patients

By Ben Mauk
January 02, 2009

Dance engages the brain’s sensory and learning processes in a way unique among the arts, neuroscientists and professional dancers agree. The challenges of movement seem to reward the minds of dancers both professional and amateur, and even have found an enthusiastic audience among people with Parkinson’s disease.

The Mark Morris Dance Group presented their ongoing dance program for Parkinson’s patients Nov. 15 before a workshop audience of scientists and guests at the 2008 Society for Neuroscience meeting in Washington, D.C. The group, headed by dancer and choreographer Mark Morris, has been teaching “Dance for PD” classes for six years at its location in Brooklyn, N.Y., in conjunction with the Brooklyn Parkinson’s Society.

“I am no kind of scientist nohow,” Morris began. “But I do have an interest in this Parkinson’s program. ... It turned into a dance craze that is sweeping the nation,” with at least eight programs associated with Morris’s group in other U.S. cities, as well as independent programs in the U.S. and Europe. As for the Brooklyn program, “It started as once a month, now it’s a couple times a week,” Morris said, and it fills to capacity with both regulars and newcomers.

The classes consist of seated and standing solo movements as well as activities in pairs and groups, all of which can be modified depending on a student’s mobility.

Longtime student Carroll Neesemann said of his experience in Morris’s program, “There was a time before I began to have more severe [periods without medication] in which the dance class would make things perfect. In the class you would be symptom-free.”

Morris and the class instructors stressed that the class is not a clinical treatment and that they make no medical claims. “This is not a medical experience, it is an artistic experience,” David Leventhal, a Dance for PD teacher and a dancer with Morris’s group, said in an interview.
Joining several patients in a sample class, which reached the workshop audience via live closed-circuit video feed, were SfN past president and Brandeis University neuroscientist Eve Marder and Wellesley College neuroscientist Bevil Conway. “It was an extraordinary, extraordinary event,” Marder said later. Conway said that learning the timed moves challenged him cognitively, suggesting that dance affects the healthy brain as well.

**Movement Begins in the Brain**

Morris shared his insights on dance, movement and the brain at the “Dialogues between Neuroscience and Society” event following the workshop. Marder and Conway interviewed Morris, asking about his methods and about possible biological explanations for the art form. “There’s a necessity to ‘corporalize’ music,” Morris said. “[Dancing exists] in every culture I know of.”

Conway asked Morris about proprioception, the sense of where one’s body parts are situated in space. Proprioception makes coordinated movement in space possible.

“In the dance realm,” Morris said, “the term proprioception includes feeling what you’re doing, kinesthetic awareness, how much space your taking up, how far you can reach, if your backpack is hitting someone on the subway, your sense of if someone is near you.”

As with many complex activities, honing proprioception and “muscle memory” starts as a conscious process but becomes natural and automatic in experts. “I always thought [dance] was just about getting your body to do the right thing,” Leventhal said.

But teaching Parkinson’s patients has taught him that “really, it’s about learning how to learn. ... The beginning of the process is 99 percent mental, one percent physical.”

However, when pressed at the dialogue event, Morris admitted that “by the time you’ve done a particular sequence thousands of times, it’s nothing. It’s like driving. You just got there; you don’t have to consciously look at your feet.”

“Professional dancers and people with Parkinson’s have the same challenge,” Leventhal said. “To take unfamiliar movement ... and to make it graceful, getting it to a point where it could be automatic.”
Dance class helps Parkinson's patients use movement as a strategy

By Janet I. Tu  
Seattle Times staff reporter  
Thursday, July 29, 2010

At this dance class in Kirkland, the students walk in slowly, some rigidly or with a bit of a tremor. They take their places, not at a ballet barre or on the dance floor, but sitting in chairs.

As the live music starts, they flutter their fingers like hummingbird wings, point their toes along the ground. Limbs loosen and start to flow. And perhaps something even more important happens: Smiles emerge and laughter erupts.

An unusual dance class is taking place: one taught by professional dancers and offered free of charge for people with Parkinson's disease and their caregivers. It's one of a small but growing number of such classes worldwide.

The class is called Dance for Parkinson's, based on the Dance for PD program created in 2001 by the Brooklyn-based Mark Morris Dance Group and the Brooklyn Parkinson Group. Seattle and Spokane are among some 40 communities worldwide that have replicated the model.

The idea is that dance helps ease the symptoms — and some hope might even slow the progression — of Parkinson's disease, a disorder of the brain that leads to rigid muscles, shaking, impaired balance and difficulty with walking, movement and coordination.

It's long been accepted that exercise and movement are important for those with Parkinson's. In addition to physical therapy, there are yoga and tai chi groups for people with Parkinson's, for instance.

But the idea of dance as beneficial for those with Parkinson's is fairly new. While there hasn't been much research yet that shows the benefits of dance for those with Parkinson's, one recent study did find that at least one form of dance — the tango — helps improve balance and mobility in such patients.

Dr. Monique Giroux, medical director of the Booth Gardner Parkinson's Care Center at Evergreen Hospital Medical Center in Kirkland, says that, in many ways, dance is ideal for those with Parkinson's.

Research is showing that exercises that are more creative and engaging may help the brain enhance its nerve connections and improve how the brain works, she said.

But just as important, the dance class is an opportunity for joy, creative expression and socializing — an antidote to the depression and isolation that can come with Parkinson's.

"Putting someone on a treadmill and just asking them to walk more — that's a challenging task for someone who already has movement problems," Giroux said. But "tapping into an exercise that's fun and engaging — that's going to work."

"The joy is wonderful"

At a recent class at the Peter Kirk Community Center in Kirkland, where the Dance for Parkinson's sessions are held, the teachers led the students in movements inspired by birds.
They learned the steps first while sitting in chairs, then standing up, then moving across the floor, building on each movement until they had an entire routine: swooping like herons, lumbering like owls, fluttering like tropical birds.

A musician, improvising on an electric violin, accompanied throughout.

"The joy is wonderful," said Jenny Getchell, 46, of Sammamish, who has had Parkinson's since she was 8. Plus, "I feel real comfortable around people with Parkinson's because they know what it's like."

When someone has Parkinson's, the nerve cells in the brain that produce the chemical dopamine are slowly destroyed. Dopamine facilitates movement, so when there's a lack of dopamine, it's hard for a patient to initiate and control movements, unless she or he consciously thinks about and directs them.

That makes movements like walking unpredictable for those with Parkinson's. They may end up shuffling. But when they focus on where they put their feet, things go more smoothly.

The idea for the Dance for PD program began when the director of the Brooklyn Parkinson Group realized the way dancers consciously think about movement was in some ways similar — and could be beneficial — to Parkinson's patients.

"Dancers train — even at a most basic level — to figure out strategies to learn movement, to string movements together seamlessly," said David Leventhal with the Mark Morris group and one of the founding teachers of Dance for PD.

Music seems to help, too. "Many Parkinson's patients will freeze. But if there's music playing with a constant steady beat, it's almost like a reminder to keep stepping," said Leilani Pearl, director of communications with the National Parkinson Foundation.

**Program to expand**

The Dance for PD program began spreading in 2006 when the Mark Morris Dance Company started putting on the class wherever the company tours — including Seattle in 2008. Local classes started when demand continued even after the Mark Morris company left.

The local program — a partnership between Seattle Theatre Group, Spectrum Dance Theater and the Booth Gardner Center at Evergreen — began offering six-week sessions in fall 2009. Starting this September, it's expanding to eight weeks.

All classes follow the same basic format, though local dancers add their own flair: movements from their own dance company's repertoire, for instance.

Each class starts with participants practicing dance moves in chairs, then standing with the chairs or ballet barres for balance, before moving on to circle work and movements across the floor.

Through it all, the principle is to teach not to the symptoms, but to hold a real dance class, based on imagination, imagery and movement.

"It takes the focus off their limitations and it puts it on what they can do," said Shawn Roberts Hensley, school and outreach director for Spectrum Dance Theater.

There's something beautiful about seeing those with Parkinson's and their caregivers taking a dance class together, she said. "Especially a husband and wife — seeing them dance together again."

Jean Norsworthy, 84, of Bellevue, loves the social aspect and says the classes have improved her confidence in moving.

"Before the class, she wasn't confident even walking by herself," said her daughter, Tina Norsworthy, who takes the class with her mom each week. "Now she danced by herself on a cruise! I love seeing my mom smile, how happy she is dancing."
June 11, 2009

**Dance for Parkinson’s Disease Comes to the Bay Area**

*By Jaime Robles, The Berkeley Daily Planet*

In a studio with mirrored walls and ballet bars, dancers are learning a series of steps from “Gorgeous tragedy,” a solo variation from Mark Morris’ L’allegro, il penseroso, ed il moderato. They cup their hands as if they were holding water and throw their arms backward, tossing that water over their shoulder; at the same time, they kick a foot outward. They bring their arms and hands together before their face, part their hands, and lean forward, arms dropped toward the floor and dangling, with the smallest suggestion of a pendulum swinging. The dancers finish the combination of movement by tracing a serpentine curve with their fingers in the air in front of them.

What may appear strange about the class is that everyone is seated in chairs. And there’s something else different about these dancers: although half of them are dance teachers from different parts of the East Bay, the other half are sufferers of the neurological disease called Parkinson’s.

A degenerative disease of the brain, Parkinson’s disease is a movement disorder characterized by muscle rigidity, tremor and a slowing of physical movement. It has been known for some time that exercise helps ease the symptoms and may even slow the progression of the disease, but it has only recently been suggested that dance might be the most effective form of exercise for the Parkinson’s patient.

**How Dance for PD came about**

Eight years ago the Brooklyn Parkinson Group and the Mark Morris Dance Group (MMDG) began an unusual collaboration at the Dance Group’s studio in Brooklyn, when members of the company, David Leventhal and John Heginbotham, began giving classes on a weekly basis to people affected by Parkinson’s.

The collaboration was proposed by Olie Westheimer, the founder and director of the Brooklyn Parkinson Group, a chapter of the National Parkinson Foundation.

Westheimer’s lifetime interest in dance had led her to the MMDG studio. “Olie didn’t want us to know anything about Parkinson’s before we started teaching class,” Leventhal says. The idea was that dancers are experts at movement and that they have a similar relationship to movement that PD patients do, which is to be “totally mindful” of how they move, and “to bring consciousness to movement.”

What is taught in class has developed continuously over the years as a process of feedback between the dancers teaching and the PD participants. Before class begins, Leventhal cautions everyone to move only as much as is comfortable. “You are your own very best choreographer,” he explains.

The movements taught are generally simple, but their accomplishment is subtle. Heginbotham instructs the students on the dynamics of a single movement of the arm, or a shift between kinds of movement:
“The first movement is like you’re in a beer hall. You are wearing lederhosen. And the second movement should be as much like ballet as you can make it. So it’s from beer hall to ballet.”

Unlike beginning dance classes that often emphasize the repetition of codified movement, the Dance for PD classes ask for creativity and individual expression as well. “I think it’s time,” says Heginbotham, “for our Name Game.” Leventhal explains, “This is a choreographic identification. You are going to give us a little phrase that is your identifying movement.” One after another each dancer improvises a series of steps they feel is reflective of themselves while the other dancers mirror the action and the pianist improvises, flowing melodically between classical music, jazz and show tunes, slow and fast rhythms.

Here at last

MMDG’s dancers first began their Dance for PD in the Bay Area several years ago, through Susan Weber, the assistant artistic director at Berkeley Ballet Theater. A former dancer with the Lar Lubovitch Dance Company in New York, Weber is currently Mark Morris’ assistant on projects at San Francisco Ballet and often teaches company class for Morris’ dancers. Weber provided the connection between Leventhal and Heginbotham and the Berkeley Ballet Theater, which is now the main organizer of Dance for PD in the Bay Area.

Last year, with the support of Cal Performances, Berkeley Ballet Theater applied for and received funding from the Chancellor’s Community Partnership fund, which they are seeking to renew in order to further develop the program.

The classes have been so inspiring that the PD dancers attending founded their own organization, PDAActive, an advocacy group of Berkeley/Oakland-based people impacted by Parkinson’s disease whose mission is to strengthen the local PD community. Dance classes are a main focus of their activities, and the organization acts as advisor to the Berkeley Ballet Theater, helping to develop movement programs, publicize the program and raise funds. Currently, classes are held three times a month at a Berkeley Ballet Theater studio in the Julia Morgan Theater building. And a Thursday semi-monthly class is also given at Oakland’s Danspace at 473 Hudson St.

In his book *Musicophilia: Tales of Music and the Brain*, neurologist Oliver Sacks writes that music gives Parkinson’s sufferers exactly “what they lack, which is tempo and rhythm and organized time.” He might have added that dancing to music infuses their lives with energy and joy.