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Dennis Danfung, for USA TODAY

Hilma Griffis, 72, center, who has Parkinson's disease, participates in a dance class in London. Through a partnership with the Brooklyn Parkinson's Group, dancers from Mark Morris Dance Group lead weekly customized dance workshops for people with Parkinson's and their caregivers.

### 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

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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 dopamineproducing 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."