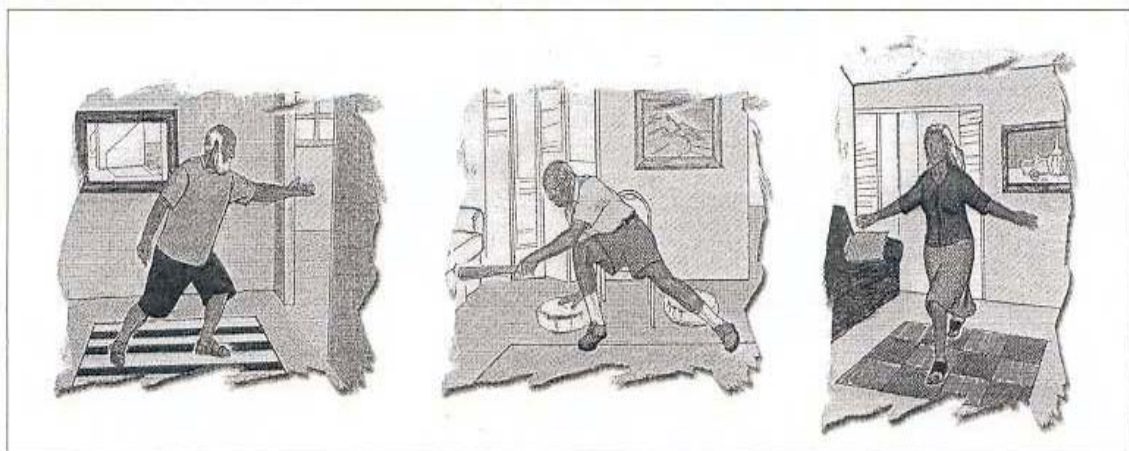


# Patients With Parkinson's Disease Take Big Steps in Rehabilitation Program

**S**AN DIEGO—A novel physical therapy program that helps teach patients with Parkinson's disease to reach faster and walk quicker and with longer strides has improved their balance and coordination, as well as decreased their bradykinesia. The exercise regimen improved patients' overall quality of life and enhanced their ability to perform more than one task at a time, according to Becky G. Farley, PhD.

"After participating in therapy, subjects performed better than did normal elderly during the dual task of walking and saying the days of the week backward," reported Dr. Farley. "For 16 one-hour sessions, four times a week, people with Parkinson's disease are encouraged to take big steps, make big arm movements, and make a big effort" in what is called Learning Big therapy. Dr. Farley, who is a Research Assistant Professor in the Department of Physiology at the University of Arizona in Tucson, presented her findings at the 34th Annual Meeting of the Society for Neuroscience.



*These illustrations demonstrate three aspects of the Learning Big rehabilitation program for patients with Parkinson's disease. In the first two drawings, the man is practicing making big sweeps of his arm as he reaches from side to side, in one case from a standing position and in the second case from a seated position. In the third illustration, the woman is practicing taking big steps forward. (Illustrations by Margaret McCann)*

Dr. Farley compared 18 patients with Parkinson's disease with 13 elderly controls. She found that patients who improved the most were in the earlier stages of the disease, which "suggests that at the time of diagnosis, people with Parkinson's disease have the potential to move bigger and faster, even at a time when they are unaware of their motor deficits and have no complaints for their physicians," she

said. "Early intervention may facilitate carryover of these bigger and faster movements into daily function and thereby actually slow the development of the disease."

Dr. Farley noted that the cadence of patients' walking was not changed with practice; rather, they took the same number of steps but with longer strides. Patients also developed bigger trunk rotation and longer reaching movements af-

ter participating in the therapy. Dr. Farley added that the Learning Big therapy changed patients' perception of their walking ability, so that while they previously thought they were taking normal strides, they now understood that these were actually only a shuffling gait.

"This is the first time Parkinson's-specific treatment concepts (increasing motor drive, retraining sensory perceptions) and motor-learning principles (high effort/multiple repetitions, feedback) have been incorporated into a standardized rehabilitation protocol," asserted Dr. Farley.

The Learning Big therapy is derived from a treatment for the speech of persons with Parkinson's disease called the Lee Silverman Voice Treatment, which trains patients to talk loudly. **NR**

—Jean McCann

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#### **SUGGESTED READING**

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