

UNDER CONSTRUCTION NO MORE!

**Parkinson's patient maintains his independence
with the help of IM to continue working.**



BERNARD is an 86 year old gentleman who has continued to be actively involved in a concrete business he established many years ago. Although many people his age have retired, he continues to go to work every morning.

In August, Bernard underwent a carotid endarterectomy after experiencing a brief episode of right sided weakness and slurred speech. He was admitted to the inpatient unit at Kansas Rehab Hospital because of his increased weakness and an exacerbation of his Parkinson's Disease.

Bernard had great difficulty initiating movement, was taking very small steps with his four wheeled walker and required assistance to perform routine daily tasks. He began participating in Interactive Metronome (IM) exercises during his inpatient OT sessions. The IM program provides a structured, goal-oriented process that challenges the patient to synchronize a range of hand and foot exercises to a precise computer-generated reference tone heard through headphones. The patient attempts to match the rhythmic beat with repetitive motor actions. A patented auditory-visual guidance system provides immediate feedback measured in milliseconds, and a score is provided.

All upper body IM exercises were performed while seated and lower body exercises were performed while standing using a rolling walker with contact guard assistance. His initial IM exposure included only six exercises. Visual feedback was introduced immediately. Bernard was very frustrated by the initial results of his timing. In addition to providing counting and demonstration cues, the tempo of each IM exercise was modified to increase his opportunity to demonstrate more "right on" responses. As an inpatient, Bernard regained his independence with the basic skills he needed to live at home alone.

Bernard became very intrigued by the use of IM during his inpatient stay and requested that he continue to have OT sessions on an outpatient basis.

Occupational Therapy sessions included:

- Performance of UE and LE Interactive Metronome exercises while sitting and standing (with and without a gait device) with ongoing changes in tempos and increased repetitions.
- Establishing baseline performances for sit to stand transitions and walking short distances using his walker during simulated functional tasks.
- Instruction in use of counting cues and music tempos to successfully move through cluttered areas, on/off elevator, within his apartment and while making turns.
- Training to use written cues to modify his standing posture and make moving less challenging.
- Education to self monitor changes in his function that could be communicated to his neurologist.

Bernard developed an understanding of how his level of fatigue impacted his timing and overall function. He made an important decision that was supported by his family. He decided to delegate the tasks of driving so he could conserve his energy for his mobility. Bernard hired an assistant, Ernie, for driving and he encouraged Ernie to participate in his subsequent OT sessions. Ernie was able to understand how Bernard's movement was positively affected using the rhythmic tempos of the Interactive Metronome exercises. At the conclusion of each session, Bernard would say, "I always move better after I come for the therapy sessions with IM!"

After his final outpatient session, Bernard's Occupational Therapist visited his workplace. He was able to apply what he had learned in his fast paced business office. It was exciting to see how many people were supportive of Bernard's efforts to maintain his independence and involvement in his place of business.

Karen Farron, OTR/L, MHS, MIMC is certified as a "Masters Interactive Metronome" provider and a Senior Occupational Therapist at Kansas Rehabilitation Hospital in Topeka, Kansas. She also uses IM in her treatment of patients who diagnoses include: brain injury, stroke, Parkinson's disease, surgical amputations, Multiple Sclerosis, lower extremity joint replacements/repairs, and pulmonary disease.

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