AMERICAN PARKINSON DISEASE ASSOCIATION
MISSOURI CHAPTER

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MULTI-TASKING WITH PD

May/June 2023 Newsletter

Walking and talking at the same time or doing more than one thing at a time is a common activity for many people. For example:

- **Exercise:** Walking and talking can be a part of a regular exercise routine, such as going for a walk with a friend or participating in a group fitness class.
- **Socializing:** Walking and talking can also be a way to socialize and catch up with friends or family members, whether it is taking a stroll through the park or walking around the neighborhood.
- **Medical appointments:** People may have to walk and talk at the same time during medical appointments, such as when discussing symptoms with their doctors or nurses.
- **Daily tasks:** Walking and talking may also be necessary for completing daily tasks, such as taking a phone call while carrying groceries home from the store, or walking to the mailbox while greeting the mail carrier, or conversing with a neighbor while walking their dog.

These daily activities may seem straightforward for many of us, but they require our brains to do many complicated things all at the same time. Walking requires that our brains attend to motor control, balance, movement planning, and our environment, all of which involve multiple areas of the brain working together. Additionally, our brains have to continually update each of these so that our movement continues to adhere to our plan and fit with any changes in our environment.

Meanwhile, talking requires multiple steps from thinking what to say to activating the speech muscles. Before we can speak, we must conceptualize what we want to say by retrieving information from memory. Our brains formulate this message into words and phrases by selecting appropriate words. The movements of the vocal folds, the mouth, tongue, and the lips must be coordinated to articulate the speech sounds. Similar to walking, we adjust our speech in real-time to ensure our messages are being conveyed accurately.

Parkinson's disease (PD) disrupts an individual's ability to perform tasks that were once done automatically, forcing them to think more about what they are doing and how they are doing it. Notably, the once automatic tasks that are commonly impacted by PD include walking, talking, and many other tasks in daily life. Often the impact of PD on these tasks is minimal or hardly noticeable at the early stages of the disease, however, when individuals attempt to do these in challenging or complex situations, they find that things are not as automatic as they used to be. It is not uncommon that many patients find that walking requires more thought or that speaking requires more effort.

While there is no known method that will completely reverse this challenge, there are things that can be done to minimize this impact.

- **Be physically active.** Physical activity helps to maintain better control of walking, balance, and movement.
- **Be socially engaged.** Talking to family, friends, and people in community not only boosts the speech circuits in the brain but also reduces isolation and loneliness.
- **Make time to be cognitively challenged.** Time spent thinking in new or different ways encourages the brain to maintain flexibility, like jigsaw puzzles, sudoku, learning something new, or using technology in a new way.
- **Practice.** If you want to be better at doing more than one thing at a time, it takes practice. To practice this optimally you should do activities that are sufficiently challenging together in that you find it hard but doable to maintain your walking speed or talking. A rehabilitation professional can help you practice these activities safely.

Ideas for practice during walking:

- Name as many animals as you can
- Name words that begin with the letter "T"
- Recall the names and birthdates of family members or friends
- Explain how you do something (like changing the oil in a car, how you plant flowers, describing a recipe)
- Hold a conversation

If walking is hard, we suggest doing these things while standing still, standing up and sitting down, or marching in place. Any combination of thinking, speaking, and moving could be used to create the right kind of challenge. This could even include doing a crossword puzzle while maintaining a conversation.

Our research shows that individuals with better ability to do two things at once are less likely to experience rapid progression of their symptoms. We are conducting research to help us design effective therapy recommendations for PD and improve the ability to meet the daily demands of safely doing more than one thing at a time.

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