

AMERICAN PARKINSON DISEASE ASSOCIATION

OWA CHAPTER

A Resource for Iowans with

Parkinson's Disease and those who care for them.

# Multitasking TO ENGAGE YOUR BRAIN





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Live it! is also available online! Visit www.apdaparkinson.org/iowa for an electronic copy.



Also, follow us on Facebook (www.facebook.com/lowalandR)



#### Live it! Staff

Medical Director: Lynn Struck, MD

Editor: Kay Arvidson

**Contributors:** Susan Callison, Laura Rossmann, Cookie Cranston, Elizabeth Stegemoller, Tallis Strub, Sydney Marshman,

the St. Louis Chapter of APDA **Art Director:** Patrick Vaassen

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#### **Reader Submissions**

Live it! magazine is intended to be a voice for the Parkinson's disease community. We encourage and are pleased to consider your words, an article, art, and photo submissions for future issues from our readers - anything that shows how you Live It! Please send your submission requests to Iowa Parkinson's Disease Association, PO Box 643, Ankeny, IA 50021 with Live It! On the attention line, or email them to apdaiowa@parkinson.org. Please note: The decision to include reader submissions is at the discretion of the editorial staff. The editorial staff reserves the right to edit or otherwise alter any material submitted. If you would like submission material returned to you, please include a stamped, self-addressed envelope.

#### Disclaimer

All material related to Parkinson's disease contained in this magazine is solely for the information of the reader. It should not be used for treatment purposes, but rather for discussion with the patient's physician. Specific articles reflect the opinion of the writer and are not necessarily the opinion of the editorial staff, the medical director, The Iowa Chapter of APDA, or the APDA.

## from our medical director

The lowa Parkinson Disease Association, lowa Chapter, and Live It! Magazine are privileged to have board-certified clinical neurologist Lynn K. Struck MD as our advisory medical director. Dr. Struck is on staff with Unity Point Health Physicians, Des Moines, and is a leading expert in movement disorders in lowa. She has focused her career on advances in treatment of her many patients with Parkinson's disease and ongoing research to find better treatments and, ultimately, a cure.



**Lynn K. Struck, MD**Neurologist
Physician Specialty Clinic
UnityPoint Health – Des Moines

#### Welcome to 2024!

In this issue we review accommodations that allow you to live safely at home. Please make this a New Year's resolution. These changes can be reviewed with family members or friends.

Many of these options can be done in a cost effective manner. Preventing an injury is so important for long term quality of life.

We are already planning our June conference and many other activities and it is going to be a very exciting year.

Welcome to 2024!

Lynn K. Struck, MD

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#### contact us:

American Parkinson Disease Association Iowa Chapter PO Box 643, Ankeny Iowa, 50021

(515) 782-4386 www.apdaparkinson.org/iowa



### **Upcoming Events**

#### **PD Essentials**

Class for the newly diagnosed on the 2nd Tuesday of each month. starting January 9, 2024, 3-4 p.m.

In Person at On With Life in Ankeny, 715 SW Ankeny Rd, Ankeny, IA 50023. You can also attend on zoom. Zoom details provided following registration. Register on our website: *apdaparkinson.org/iowa* 

## PRESS- Parkinson's Roadmap for Education and Support Services

Education for those diagnosed in the past 5 years. Virtual January 10-February 28, 2024. Wednesdays: 11:30-1 p.m.

Registration required. Find the link on our website: apdaparkinson.org/iowa

#### Parkinson's Education Program: Symptom Management

Tuesday March 5, 2024, 4-5 p.m.

In Person at On With Life 715 SW Ankeny Rd, Ankeny, IA 50023. Register on our website: *apdaparkinson.org/iowa* 

#### In Person PRESS

April 10-Feb. 28, 2024 3:00-4:30

Watch our website for location details: apdaparkinson.org/iowa

# The Essence of Music In Parkinson's Disease

Dr. Elizabeth Stegemoller, PhD, MT-BC

#### **Interview By Cookie Cranston**

Music has the power to change worlds. And in the world of Dr. Elizabeth Stegemoller, PhD, the musicality of sound, tempo and rhythm not only enrich her career as a musician and certified music therapist, but also contributes to and guides her research.

#### 18 years of Research

Dr. Stegemoller has spent the last 18 years combining neuroscience and music to understand Parkinson's Disease and help people with PD keep their voices strong. She is an Associate Professor at Iowa State University in the Department of Kinesiology, and Director of the Graduate Interdepartmental Neuroscience Program. Her credentials include a PhD in Neuroscience, a Bachelor of Science in Biology and a Bachelor of Arts in Music Therapy. Whether through research or outreach groups, the APDA has long been supportive of her work, and she likewise feels that her association with APDA has been a great match.

Music can be relaxing and ease stress levels; allow individuals to explore and experience various emotions; reduce anxiety and depression; impact mood; strengthen communication and build social skills while improving speech and language skills—all of which are key to improving PD health outcomes.



#### How singing helps PD

Dr. Stegemoller is currently researching the effects of music, singing and group singing on Parkinson's symptoms with impressive results. "When we sing, it's like we're doing little mini exercises for the same muscles you use to swallow, breathe and cough to make them stronger and work together," Stegemoller explains. And by significantly improving respiratory and swallow control, singing may be protective against aspiration pneumonia, as was discovered in a previous groundbreaking study conducted by Dr. Stegemoller and her team of research colleagues.

#### **Improving Motor and Non-Motor Skills**

Music therapy may also be an effective nonpharmacological treatment for improving motor and non-motor symptoms of PD by naturally increasing dopamine levels. Dr. Stegemoller has been particularly touched by intriguing results from a study that found both a reduction of tremor and improved gait in people with PD after only one hour of singing. The harmony of rhythm, beat, lyrics and movement combine to produce a symphony of results as singing is known to be a dopamine agonist. At the same time, singing has been shown to improve posture, movement, mindfulness, breath, voice strength, swallow function and facial expression.

#### **Well-Being and Joy**

Also among the findings is the importance and significance of individual feelings of well-being and joy for those participating in group activities, music therapy and research trials. Recognizing small joys in our daily lives can positively impact changes and challenges that occur, especially when facing a difficult journey such as Parkinson's or other chronic diseases.

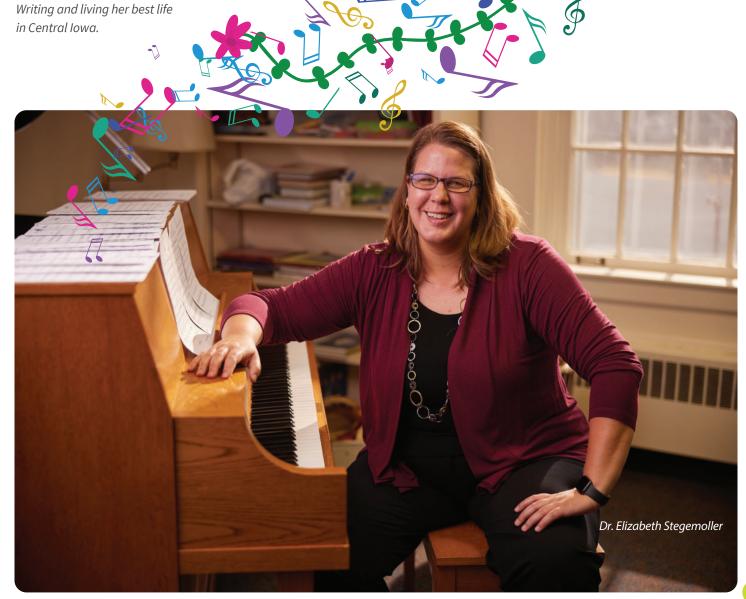
Not only does music positively supports and impacts neuroplasticity and the brain's ability to form new synaptic connections, music also supports important connections among social, emotional, cognitive and physical aspects. It taps both motion and emotion, and Dr. Stegemoller advocates heavily for singing as a super exercise that proves to be a great tool for those wanting to live their best

life—sing, sing, sing with confidence,' chirps the cheerful, resounding advice of Dr. Stegemoller! "We know music is a powerful tool for health and healing. These research projects get us a little closer to understanding why."

#### **Taking The World Stage**

Cookie Cranston, Writer, Author. Volunteer: Lewy Body, Alzheimer & Parkinson Associations;

Dr. Stegemoller and her peer research teams' findings are very much in tune with the treatment of PD symptoms. The research has actively taken the world stage by storm in Movement Disorder centers around the globe. Music and singing prove to not only bring considerable symptom relief, but also bring essential elements of joy and hope for those with PD journey—a powerful opus that contributes substantively to basic needs and quality of life. Music and singing can and do change worlds for those with Parkinson's Disease.

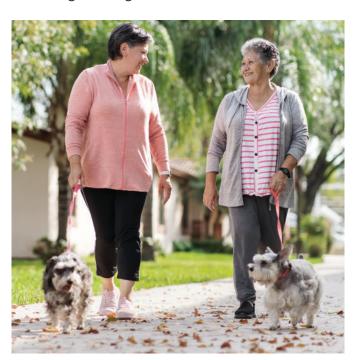




# Multitasking TO ENGAGE YOUR BRAIN

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.



#### **Multitasking and Your Brain**

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.

#### **Importance as PD Progresses**

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.



#### **Minimize the impact**

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 reduce isolation and loneliness.
- Make time to be cognitively challenged. Time spent thinking in new or different ways encourage 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. 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.

#### **How it helps PD**

Research shows that individuals with better ability to do two things at once are less likely to experience rapid progression of their symptoms.

## Living in a Smart Home

As winter approaches and the desire to stay indoors grows, it's essential to ensure that your home is a comfortable and safe space. This article focuses on simple, yet impactful indoor modifications tailored to support individuals living with Parkinson's Disease. By emphasizing changes that enhance safety and ease of movement, these adjustments aim to create a smart home environment that fosters independence. Symptoms like tremors, stiffness, and balance issues, can increase the risk of falls and make daily tasks challenging. Implementing slight modifications within the home can significantly enhance safety and ease of living with PD.

#### **Flooring and Lighting**

Installing non-slip flooring throughout the house, especially in high-risk areas like bathrooms and kitchens, can reduce the chances of slipping. Bright and evenly distributed lighting helps improve visibility, aiding movement and preventing accidental falls. It's



important to consider lighting during both day and nighttime, ensuring pathways during midnight bathroom trips are well lit. Night lights now come in various shapes and styles, offering features like rechargeable batteries, removability, and motion sensors.

#### **Furniture Selection & Arrangement**

As the winter months have you cozied up in your favorite chair, you might start noticing it's asking for a bit more TLC – perhaps a fluff-up or a brandnew replacement! Furniture selection is equally important as furniture arrangement. Furniture should not only be comfortable, but also



stationary, firm and an appropriate height to easily sit to stand from. Chairs with armrests are typically preferred as armrests can assist with moving from sitting to standing.

Furniture should be arranged to create clear pathways. This means removing unnecessary obstacles and reducing the number of sharp corners on coffee tables and large pieces. This process minimizes the risk of tripping and accidental injury. We'll talk about technology a bit later, but consider cord management and how to remove cords from walkways.

#### **Bathroom Modifications**

I think we're familiar with standard bathroom recommendations to reduce fall risk – tall toilets, grab bars, a shower seat for additional support. There are many other solutions that may improve bathroom safety and independence. Non-slip strips and non-slip paint that adheres to the



shower floor reduces the need to fuss with a nonslip shower mat. A bendable, long handled shower brush might help with hard to reach places. A security or transfer pole can be easily installed in places that may not accommodate a traditional grab bar.

#### **Kitchen Adjustments** -

The kitchen often functions as the heart of our home particularly during the holiday season and winter months. It's a great time to consider where your most often used appliances and utensils are stored – are they in easy to reach locations? Utilizing pull-out shelves and lazy susans in



cabinets reduces the need to reach or bend extensively which in turn improves fall risk. It's common to have rugs throughout the kitchen, consider removing or securing rugs with rug tape to reduce the likelihood of tripping.

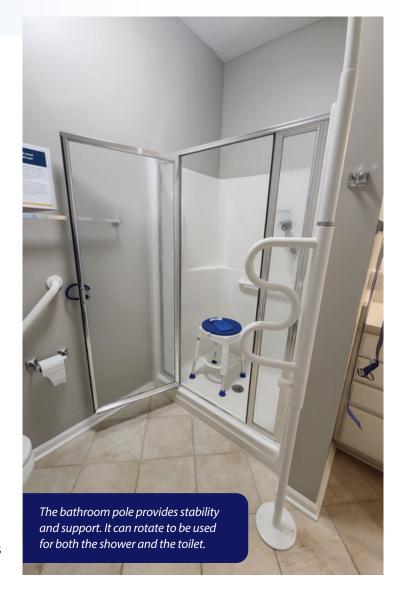
#### **Home Technology**

Integration of smart home devices such as smart speakers, voice-activated lights, thermostats, or security systems reduces the need for manual adjustments and can enhance daily routines. Smart home technology can also be synonymous within fall detection systems, helping individuals and their caregivers in the event of a fall. Smart home technology can be a simple "plug and play" set up, or extensive with multiple connected speakers and pieces of technology. Common uses for smart speaker systems may be asking questions such as date and weather, video conferencing with family, or turning lights on/off.

#### **Home Maintenance**

Last, but not least, is the importance of regular home maintenance. As we spend more time indoors, you may notice the need for simple fixes in your home. Winter is a great time to tighten handrails on stairs, replacing batteries in smoke detectors, and update lightbulbs to long lasting LED options. These small and at times mundane tasks ensure we can sustain a safe home environment.

Incorporating these modifications promotes a more accessible and safer living space for individuals with PD. However, it's essential to assess the specific needs and abilities of the person with Parkinson's regularly to make further adjustments as required. Consulting with healthcare professionals or occupational therapists can provide personalized recommendations for home modifications tailored to individual needs. Improving your home environment not only reduces the risk of accidents but also promotes independence and a higher quality of life.





# The Power of Dance for People with Parkinson's

"When we're dancing, there is no disease. Just joy." Tallis Strub, PD Moves Dance Instructor

We have entered a dance class. Dancers, some seated, some standing, try out newly learned moves with their partners. Lively rhythmic music invites the class to experiment with the new movements—and we hear laughter - this is serious fun. The dancers are all people living with Parkinson disease and their care partners, discovering the joy of moving to music together.

For people living with PD and their care partners, dance can be a great gift, enhancing quality of life, elevating mood, strengthening social connections, and improving functional movement.

#### **Dance and People with Parkinson's**

Neuroscientists and clinicians have noted the effects of dance on people with Parkinson's for several decades. Although most of the research on dance and PD has been limited to small populations, the results have been promising. Both motor and non-motor symptoms of Parkinson's appear to respond to participation in adapted dance classes. A meta-analysis of thirteen previously completed studies (Shanahan, 2016) concluded that dance may benefit people with PD by offering greater quality of life and social participation, as well as improved balance, endurance, and functional mobility.

#### **Recent PD Studies**

- Twice-weekly dance classes improve walking ability and decrease freezing of gait (Harrison, 2020)
- Anxiety and depression decrease, and some cognitive skills and quality of life improve with dance classes two times per week (Kalyani, 2019)
- Weekly dance classes enhance self-efficacy and improve quality of life (McRae, 2017)
- Motor symptom progression is slowed by weekly dance classes over course of three years (Bearss, 2021)

#### **Components of an Effective Dance Class**

A diversity of dance styles have been studied and found to be helpful for people living with PD, including modern, jazz, tango, folk, hip hop and other dance styles. Key components of effective dance classes include:

- Warm-up activities to gradually engage and lengthen stiff muscles, as well as address posture and respiration.
- A balance of choreographed and improvised dances that call for large movements, movement reversals, weight shift, as well as movement in all planes
- Activities that relate the dancers to each other socially
- Use of narrative or other imaginative materials to engage dancers emotionally
- Adaptations and modifications to allow all dancers to participate as safely and fully as they are able
- An appropriate level of cognitive challenge, including sequencing, problem-solving, etc.
- Cool-downs to allow tired muscles to stretch out
- A closing activity to allow dancers to experience and express gratitude

#### **Joy in Movement**

Dance has transformative power; for people living with PD, dance can offer a way to re-experience joy in movement.



# Bits and Pieces

## **Keep moving!**

#### **PD Moves Dance Class**

Fridays, March 22 - April 12, 12:30-1:30 p.m.

#### **PD Moves Dance Class**

Mondays, April 15 - May 20, 6:30 -7:30 p.m.



#### **Des Moines Ballroom**

1925 High St, Des Moines, IA 50309

Registration required. Visit our website: apdaparkinson.org/iowa

#### **NEW Free PD Exercise Class**

Monday's at 11:00 starting January 10

#### **Independence Village**

1650 SE Holiday Crest Circle, Waukee, IA 50263

Registration required. Visit our website: apdaparkinson.org/iowa

### **Other News**

#### **IRA Designations**

If you are 70½ years old and older, you can give any amount (up to a maximum of \$100,000) per year from your IRA directly to a qualified charity such as the APDA without having to pay income taxes on the money. Gifts of any value \$100,000 or less are eligible for this benefit and you can feel good knowing that you are making a difference at APDA. This popular gift option is commonly called the IRA charitable rollover, but you may also see it referred to as a qualified charitable distribution, or QCD for short. Since the gift doesn't count as income, it can reduce your annual income level. This may help lower your Medicare premiums and decrease the amount of Social Security that is subject to tax.

An Easy Way to Get Started: Call the ADPA office today at (515) 782-3833. In under 10 minutes, you can give to APDA lowa Chapter from your IRA.



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# SAVE THE DATES

# Western Iowa Conference

April 25, 2024 - Sioux City

## APDA Iowa Conference

June 7, 2024 - Lutheran Church of Hope, West Des Moines Iowa

Visit our website for conference details and registration information: www.apdaparkinson.org/iowa or call (515) 782-4386.