

NOVEMBER 2024 **Barbara Marquardt, Editor, M.Ed., MCHES, WCP, RYT**

NOVEMBER MEETING—Wednesday, November 6, 2024 – 2:15 p.m.

We welcome **Amy Larocca, MA CCC-SLP**, from **Polaris Speech** who will talk on Parkinson's and speech therapy including, swallowing, speech, and breath support.

Cleveland Heights Senior Activity Center/One Monticello Blvd., Cleveland Heights, OH 44118

DECEMBER MEETING / Wednesday, December 4, 2024 – 2:15 p.m.

We are pleased to have **Kathy Wendorff, Cherry Monahan**, and **Richard Huckabee** talk about **Planning for Your (Unplanned) Hospital Visit**. Join us for this very informative session with the speakers providing real recent experiences.

From David Brandt

The last of this season's symposium is scheduled for Saturday November 16th as University Hospitals is having their 15th Annual Parkinson's Boot Camp to be held at the Holiday Inn in Independence. As always, this should be a very informative event.

- Take control of your Parkinson's disease and plan to attend this free, hands-on event. Speakers will teach exercise techniques, mind and body wellness practices, and invigorating skills that can help people with Parkinson's to better manage their disease. In conjunction with our Parkinson's community, we are proud to welcome our keynote speaker Dr. Linda Olsen. Join us for a day of exercise, learning and well-being.
- The Boot Camp is free, but preregistration is required. Registration is now open. You may register online at the uhhospitals.org website or call to register at 216-983-6683. Space for this event is limited.
- Limit 3 people per group reservation.

We need your donations to continue bringing you the *PEP* News and for other expenses. A special thanks to those who contribute at the monthly meetings. To send a donation, please make your checks payable to Parkinson Education Program and mail to 2785 Edgehill Rd., Cleveland Heights, OH 44106

New Study Further Personalizes Deep Brain Stimulation

(Excerpt from Parkinson's Foundation)

Deep brain stimulation (DBS) is a surgical treatment that provides relief to people with Parkinson's disease (PD) who experience movement symptoms and medication side effects. Since its U.S. Food and Drug Administration (FDA) approval to treat PD symptoms in 2002, DBS can help reduce medication needs and stabilize symptoms. PD symptom severity often varies throughout the day — because DBS provides constant electrical stimulation, there can be times when it is too much or too little, which limits its effectiveness.

A recent study has developed a new approach, known as adaptive DBS, which has the potential to further personalize DBS treatment for Parkinson's. It was recently tested in a small clinical trial reported in **Nature Medicine**.

Utilizing custom computer algorithms and artificial intelligence (AI), adaptive DBS can detect symptom changes in real time by monitoring brain activity that is specific to each participant. When it detects changes, the system delivers precisely calibrated electrical pulses to counteract these shifts.

(Cont'd on Pg. 2)

PD Question Corner

Email: barbaramarquardt@outlook.com

Question: What is the truth about coffee and brain health?

Answer: Sorry to break the news, but the caffeine in coffee blocks adenosine which controls blood flow to the brain, and then blood vessels constrict, and less blood circulates in the brain.

This data was from a past MRI study done at Wake Forrester University, to watch the short, 2-minute YouTube video please visit: <https://www.youtube.com/watch?v=gfntvRGwpvs>

I know there are many people today touting the benefits of coffee, but I also find that those same people are in the coffee business, selling coffee, or are an investor in the coffee business!

Remember our blood carries oxygen and nutrients needed to nourish our body, so if that process is constricted in any way, over time it will lead to poor health outcomes. Furthermore, coffee typically has fungus and is one of the most pesticide-laden crops, especially if it is not organic!

Ref.: <https://www.youtube.com/watch?v=gfntvRGwpvs>

New Study Further Personalizes Deep Brain Stimulation *(cont'd from front page)*

The system delivers more electrical stimulation during periods of stiffness (bradykinesia) and less during phases of involuntary movement (dyskinesia). It also adjusts stimulation based on the effectiveness of levodopa medication, providing more stimulation when the medication wears off and less when it's active.

Highlights

- A clinical trial enrolled four participants to test a surgical treatment called adaptive DBS that de-

DISCLAIMER: The material contained in this newsletter is intended to inform. PEP makes no recommendations or endorsements in the care and treatment of PD. Always consult your own physician before making any changes. No one involved with the newsletter receives financial benefit from any programs/products listed.

fects and responds to brain activity to provide individualized and customized stimulation to help with Parkinson's symptoms.

- All four participants experienced a nearly 50% reduction in time spent with their most troublesome symptom when adaptive DBS was active.
- Adaptive DBS did not worsen other PD-related symptoms. Participants reported improved quality of life with adaptive DBS compared to conventional DBS.

What does this mean?

Adaptive DBS may be an evolved version of DBS treatment for improving movement symptoms of Parkinson's. The study finds that using new technology can further personalize DBS currents and make DBS even more effective in treating troublesome PD symptoms. However, developing the customized algorithms for each participant was time consuming in this small study, and it will take time before it becomes widely available.

What do these findings mean to the people with PD right now?

It's important to keep in mind that this was a small study of only four participants. The study, and its technology will need to be replicated on a much larger scale. Still, the study findings are exciting and bring hope for the PD community, as proven by its media coverage. The concept of adaptive DBS may eventually become the standard for DBS treatment, and with further development and refinement, people with conventional DBS may be able to use adaptive DBS in the future.

Adaptive DBS is still in testing and it does not have widespread availability. People should talk to their doctors about their treatment options and if they have DBS, ask doctors or their care team to inform them if a similar adaptive DBS study begins to recruit.

TRIBUTES

Franklin & Jean Barry
George Tesar
Bruce & Sally Turner

Air Pollution Linked to Higher Risk of Parkinson's, Dyskinesia: Study

(Excerpt from parkinsonsnewstoday.com)

Measures to reduce air pollution may help decrease risk, worsening of disease

Exposure to air pollutants, such as fine particulate matter and nitrogen dioxide, may increase the risk of developing Parkinson's disease and dyskinesia, or involuntary movements, according to a study using data from the Rochester Epidemiology Project.

These findings add to growing evidence that breathing polluted air is a risk factor for Parkinson's. Setting measures to reduce the levels of air pollution could be an important step toward decreasing the risk of developing the disease or experiencing worse symptoms, researchers note.

Parkinson's believed to be driven by genetic, environmental factors

While its exact causes are unknown, Parkinson's is believed to be driven by a combination of genetic and environmental factors. Growing evidence suggests that breathing polluted air could increase the risk of developing the disease.

Now, a team of researchers in the U.S. looked at whether exposure to fine particulate matter, which are tiny solid particles and liquid droplets known as PM2.5, and nitrogen dioxide affect the risk of developing Parkinson's and change how the disease progresses.

The study included 346 people with a diagnosis of Parkinson's and a median age of 72 years, and 4,813 age-matched individuals without the disease from a population database called the Rochester Epidemiology Project. The time period for the study ranged from 1998 to 2015 for PM2.5, and 2000 to 2014 for nitrogen dioxide.

People exposed to higher levels of PM2.5 had a significantly higher risk of developing Parkinson's, with those who were in the top 20% of exposure having a 14% higher risk of developing Parkinson's than those in the bottom 20%.

The risk of developing Parkinson's was even greater,

by up to 23%, for people who lived in large cities or metropolitan areas, which typically have more polluted air. Most people with Parkinson's lived in metropolitan areas compared with nearly one-third of controls (79.5% vs. 32.7%).

Higher PM2.5 levels linked to form of Parkinson's called akinetic rigid subtype

In addition to increasing the risk of Parkinson's, exposure to higher levels of PM2.5 was linked to a form of Parkinson's, called the akinetic rigid subtype, that causes stiffness and difficulty moving rather than tremor. People with this form of Parkinson's may experience faster decline of motor skills.

Higher exposure to nitrogen dioxide was also associated with an increased risk of developing Parkinson's, with people in the top 20% of exposure showing a 13% higher risk of developing the disease compared with those in the lowest 20%.

Among people with Parkinson's, exposure to higher levels of PM2.5 or nitrogen dioxide was linked to an increased risk of dyskinesia, a side effect of Parkinson's treatments that causes involuntary movements.

This means that air pollution may contribute to a worsening of symptoms in people who have already been diagnosed with Parkinson's. However, unlike findings from earlier studies, exposure to air pollutants was not linked to an increased risk of death.

"These findings suggest that reducing air pollution may reduce risk of [Parkinson's], modify the [Parkinson's] phenotype [disease characteristics], and reduce risk of dyskinesia," the researchers concluded.

Some Diabetes Drugs Tied to Lower Risk of Dementia, Parkinson's Disease

(Excerpt from www.sciencedaily.com)

PART 1 OF A 2-PART SERIES

A class of drugs for diabetes may be associated with a lower risk of dementia and Parkinson's disease (PD), according to a study published in the September 18, 2024, online issue of Neurology[®], the medical journal of the American Academy of Neurology.

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PEP NEWS

Parkinson Education Program
of Greater Cleveland
2785 Edgehill Rd.
Cleveland Heights, OH 44106

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Some Diabetes Drugs Tied to Lower Risk of Dementia, Parkinson's Disease

(Cont'd from previous page)

The study looked at sodium-glucose cotransporter-2 (SGLT2) inhibitors, which are also known as gliflozins. They lower blood sugar by causing the kidneys to remove sugar from the body through urine.

"We know that these neurodegenerative diseases like dementia and PD are common and the number of cases is growing as the population ages, and people with diabetes are at increased risk of cognitive impairment, so it's encouraging to see that this class of drugs may provide some protection against dementia and PD," said study author Minyoung Lee, MD, PhD, of Yonsei University College of Medicine in Seoul, South Korea.

The retrospective study looked at people with type 2 diabetes who started diabetes medication from 2014 to 2019 in South Korea. People taking SGLT2 inhibitors were matched with people taking other oral diabetes drugs, so the two groups had people with similar ages, other health conditions and complications from diabetes. Then researchers

followed the participants to see whether they developed dementia or PD. Those taking the SGLT2 inhibitors were followed for an average of two years and those taking the other drugs were followed for an average of four years.

Among the 358,862 participants with an average age of 58, a total of 6,837 people developed dementia or PD during the study. *(To be cont'd in December PEP Newsletter)*

TO REACH US AT PEP 440-742-0153 dbrandtpep@gmail.com
[Facebook – Parkinson Education Program of Greater Cleveland](#)

**Laughter is
Medicine**

**WHY DO DUCKS
ALWAYS PAY
WITH CASH?**

Because they
always have bills!

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