U.S. Department of Veterans Affairs
Veterans Health Administration
Parkinson's Disease Research,
Education & Clinical Centers

NATIONAL VA PARKINSON'S DISEASE
CONSORTIUM
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THE TRANSMITTER

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Article Reviews

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Total physical activity, plant-based diet and neurodegenerative diseases: A prospective cohort study of the UK biobank

Neurodegenerative diseases (NDDs) result from a complex interplay of genetic, environmental and aging factors. A balanced diet and adequate physical activity (PA) are recognized as pivotal components among modifiable environmental factors. The independent impact on NDD incidence has been previously debated. This investigation seeks to delineate the association between PA and NDDs across various levels of adherence to a plant-based diet. In this study, a cohort of 368,934 participants from the UK Biobank was analyzed. Total physical activity (TPA) levels and healthful plant-based diet index (hPDI) were calculated and categorized. A multiple adjusted Cox model was utilized to evaluate the influence of TPA and hPDI on common NDDs, respectively. In the end, 4602 identified cases diagnosed as Alzheimer's disease (AD), Parkinson's disease (PD) or amyotrophic lateral sclerosis (ALS). The authors found that higher TPA was significantly associated with a reduced risk of developing AD (Q3: HR 0.87; Q4: HR 0.78) and PD (Q3: HR 0.86; Q4: HR 0.81). The protective effect was further accentuated with adherence to a plant-based diet. However, these connections were not observed in the analysis of ALS regardless of dietary patterns. The findings underscore a significant association between higher TPA and reduced risks of AD and PD, with an enhanced effect observed in conjunction with a plant-based diet. This study contributes to addressing the knowledge gap regarding the combined impact of TPA and a plant-based diet on NDDs occurrence, providing insights into potential underlying mechanisms.

Zheng, Xiaoting et al. Parkinsonism & Related Disorders, Volume 128, 107125
DOI: 10.1016/j.parkreldis.2024.107125

The Effect of Dysautonomia on Motor, Behavioral, and Cognitive Fluctuations in Parkinson's Disease

Motor and nonmotor fluctuations adversely impact the quality of life in Parkinson's disease (PD). Dysautonomia, a feature frequently associated with PD and a possible adverse effect of dopaminergic therapy, may be comorbid with fluctuations. The authors sought to evaluate the effect of dysautonomia on motor and nonmotor fluctuations in PD. Two hundred subjects with PD were evaluated in both on and off dopamine states to assess changes in symptoms related to dopaminergic fluctuations. Multivariable logistic regression was performed to assess the association of dysautonomia with motor, cognitive, and psychiatric worsening from on to off states with adjustment for disease duration, levodopa equivalent daily dosage (LEDD), and dopamine-agonist LEDD. Subjects with dysautonomia had greater odds of clinically meaningful change in motor features (odds ratio [OR]: 3.0), cognition (OR: 3.4), and anxiety (OR: 4.3) compared to those without dysautonomia. Dysautonomia may be a contributory mechanism behind fluctuations in PD. The exact nature of this relationship deserves further evaluation.

Mahajan, A., Morrow, C.B., Seemiller, J., Mills, K.A. and Pontone, G.M. (2024), Mov Disord. https://doi.org/10.1002/mds.30044
https://movementdisorders.onlinelibrary.wiley.com/doi/10.1002/mds.30044

Exercise Habits in People with Parkinson's: A Multinational Survey.

Exercise has been demonstrated to result in improvements in physical function, cognition, and quality of life in People with Parkinson's (PwP) but its adoption is variable. The authors hope to investigate exercise preferences, levels, influencing factors among a diverse Parkinson's disease (PD) population, to understand exercise adoption patterns and plan informed interventions. A cross-sectional survey collected data through online platforms and paper-based methods was used. The Exercise Index (ExI) calculated exercise level based on frequency and duration was deployed. Of 2976 PwP, 40.6% exercised regularly, 38.3% occasionally, and 21.2% did not exercise. The overall mean ExI was 18.99 ± 12.37. Factors associated with high exercise levels included exercising in groups (ExI 24–26), weightlifting (ExI 27 (highest)), using muscle-building equipment (ExI 25–26), and exercising at home following an app (ExI 26). A positive trend between ExI and varied exercise groups, locations, types, and equipment was observed. No expected benefit from exercise achieved the lowest ExI (8). Having at least two exercise-promoting factors, a bachelor's degree or higher, receiving exercise advice at initial visits, and aged ≤40 years at PD onset were strong predictors of exercise (adjust OR = 7.814; 6.981; 4.170; 3.565). Falls and “other” most troublesome PD symptoms were negative predictors (aOR = 0.359; 0.466). Barriers to exercise did not predict the odds of exercise. The study shows that PwP's exercise behavior is influenced by their exercise belief, age at PD onset, doctor's advice at initial visits, education level, symptoms, and exercise-promoting factors. High exercise levels were associated with certain types of exercises and exercising in groups.

Jagota, P et al (2024) Mov Disord Clin Pract, 11: 1396-1409
https://doi.org/10.1002/mdc3.14197

Committee Activities

Clinical Care Committee

- **Rotation of Committee Chair:** Leadership for the clinical care committee rotates amongst the PADRECCs. The Portland PADRECC leads the committee for November/December. The committee meets via conference call the first Tuesday of the month at 12pm (EST)

- **Standardize and Optimize Clinical Care:** The committee continues to discuss treatment strategies, new medications and other procedures, and other clinical issues to improve patient care and outcomes across the national PADRECCs service area. It also serves to provide clinical support to the PADRECC Associated Sites by focusing on procedures and measures to standardize clinical care across the PADRECC network.

- **Recent agenda items have included:**

  1. **Skin biopsy for alpha-synuclein - Syn-One** (CNS life sciences): practice and protocol use in the PADRECCs

  2. **Movement disorders surgical procedures:** Focused Ultrasound Thalamotomy and Gamma Knife Thalamotomy- PADRECC outcomes

  3. **Parkinson's KinetiGraph (PKG):** practice and protocol use in the PADRECCs

  4. **Vyalev:** subcutaneous continuous infusion therapy - practice and protocol use in the PADRECCs

Education Committee

- **PADRECC/ILEAD Webinars:** knowledge-based webinars to provide VHA healthcare professionals with current practice standards and emerging trends in the treatment of Parkinson's disease and other movement disorders. CEs are provided for the live webinars. Check out the following link for a list of past webinars: Movement Disorders Series - Parkinson's Disease Research, Education and Clinical Centers (va.gov)

SAVE THE DATE

14th PADRECC/MIRECC Symposium - Webinar

Parkinson's Disease Hot Topic Debates

March 28th, 2025 9am-1pm PST / 12pm-4pm EST

The Parkinson's Disease Research, Education & Clinical Centers / Mental Illness Research, Education & Clinical Centers (PADRECC / MIRECC) symposium has provided a dynamic educational opportunity for VA clinicians and clinical researchers for over 2 decades now. The purpose of this meeting is to continue the practice of delivering an informative symposium for clinicians and clinical researchers. The intersection of PADRECC and MIRECC focuses on neurodegenerative disorders, including Parkinson's disease, Alzheimer's disease and dementia with Lewy bodies, which are highly prevalent in the Veteran population and are projected to increase in prevalence in the VA and nationally as the population ages. This symposium will

explore current controversies related to: (1) potential psychiatric risk factors for developing Parkinson's disease; (2) the impact certain Parkinson's disease treatments have on psychiatric and cognitive symptoms; and (3) common treatment recommendations.

The **target audiences** for this program are physicians, nurses, psychologists, social workers, physical therapists, occupational therapists, speech therapists and other healthcare professionals providing care to patients with Parkinson's disease, dementia, and psychiatric disorders.

Continuing education credit pending*
Agenda, brochure and registration information to follow.

- **PD Hospital Safety Training Presentation:** exploring the development of a short grab and go presentation for VA CLC, CNH and Veteran State Home staff to improve the care of Veterans with PD who reside there.

- **The Parkinson's Foundation/VHA Partnership**: this committee serves as point of contact for partnership activities. The **2024/2025 PF Veteran Webinar Series** is underway. Three committee members will be attending the PF Centers Leadership Conference (CLC) December 4-6, 2024 to further partnership activities and outreach efforts.

- **2026 World Parkinson's Congress**: WPC will be held in Phoenix, AZ in 2026 and the PADRECCs are an organizational partner. The PADRECCs are slated to do a WPC Organizational Partner Highlight Podcast in February 2025 WPC Partner Highlights - World Parkinson Coalition (worldpdcoalition.org)

- **Parkinson's Disease Rehab-Community of Practice on Microsoft Teams**- collaboration with rehabilitation subject matter experts across the VA with interest in PD to develop this COP to address and enhance rehabilitation care for Veterans with PD and similar conditions. The goal of the platform is to share evidence-based knowledge to inform PD-specific rehabilitation practices, provide access to up-to-date resources, program success and opportunities for improvement. All are welcome to join: https://teams.microsoft.com/l/channel/19%3a_NAJNcVxoyd5XB0M_UnwK4Ym7vi8C971TC0xqerdfts1%40thread.tacv2/General?groupId=bf9f6fc8-06da-401e-99c5-6dd0b47494ee&tenantId=e95f1b23-abaf-45ee-821d-b7ab251ab3bf

- **National Website Maintenance:** The committee performs periodic maintenance checks of the National Website to ensure information is current and up-to-date.

- **PADRECC Transmitter:** This committee continues to assemble and distribute this *e*-newsletter every other month.