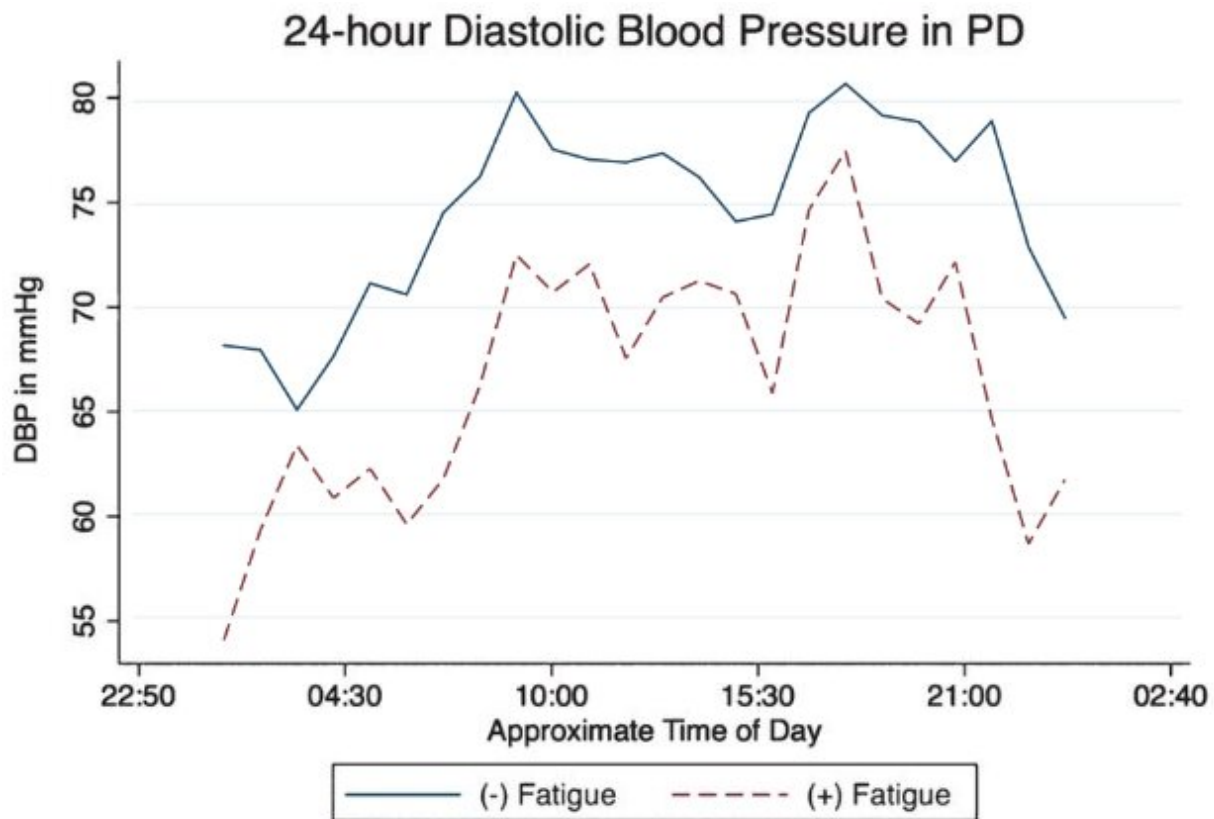


Fatigue in Parkinson's disease is associated with lower diastolic blood pressure

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Mean 24-hour diastolic blood pressure (DBP) in Parkinson disease (PD) participants with and without fatigue. The presence of fatigue was assessed using the Movement Disorders Society Unified Parkinson's Disease Rating Scale (MDS-UPDRS) part 1. Investigators compared blood pressure measurements in fatigued versus non-fatigued PD individuals assessed overnight, morning, midday and evening. Credit: IOS Press

Fatigue is a common debilitating symptom in Parkinson's disease (PD). A novel research study has found that fatigue symptoms in PD are associated with small but persistent reductions in diastolic blood pressure (DBP) throughout the day, report scientists in the *Journal of Parkinson's Disease*.

PD is a slowly progressive disorder that affects movement, muscle control and balance. It is the second most common age-related neurodegenerative disorder affecting about 3 percent of the population by the age of 65 and up to 5 percent of individuals over 85 years of age. Fatigue is a disabling non-motor [symptom](#) that affects about half of all individuals with PD. A 2015 [systematic review](#) on this topic confirmed the absence of high quality evidence supporting any particular PD fatigue treatment.

"The majority of people with PD consider fatigue, defined as diminished energy levels or increased perception of effort that is disproportionate to attempted activities, to be one of their three biggest symptomatic concerns. But despite its high prevalence and disabling nature, we know relatively little about its underlying causes," explained lead investigator Vikas Kotagal, MD, MS, Department of Neurology, University of Michigan and Veterans Affairs Ann Arbor Health System (VAAHS) and GRECC, Ann Arbor, MI, U.S.. "Understanding the [biological basis](#) for fatigue in PD is a key step towards designing effective treatments. This is an important goal for the field of PD [clinical research](#)."

Investigators conducted a cross-sectional study research assessment of 35 people with PD recruited from the Ann Arbor Veterans Affairs Health System, all of whom wore a 24-hour [blood](#) pressure monitor to track their blood pressure hourly while they were at home. Researchers asked participants about the presence of fatigue symptoms and grouped them into two categories: those with fatigue and those without.

The data demonstrate study participants with fatigue symptoms had lower mean DBP compared to those without fatigue. The differences were most notable in the morning.

"This is a novel finding that we hope may open the door for new, currently untapped ways to treat fatigue symptoms in PD," commented Dr. Kotagal. "We hope these results will help move us towards better treatments for PD fatigue. If we can design and test treatments that increase DBP without worsening the harmful cardiovascular effects of high systolic blood pressure (SBP), we may be able improve fatigue symptoms in PD. Our data may also have implications on the off-target side effects of some classes of antihypertensive medications when used by patients with PD and [fatigue](#)."

SBP, the top number typically given when blood pressure values are presented, is commonly used to describe people's blood pressure because it is a good marker for atherosclerosis and cardiovascular disease. It often gets more attention than DBP, which is typically presented at the bottom. DBP gets comparatively less attention but may better reflect the type of autonomic dysfunction that is common in PD.

More information: Vikas Kotagal et al. Fatigue in Parkinson's Disease Associates with Lower Ambulatory Diastolic Blood Pressure, *Journal of Parkinson's Disease* (2019). [DOI: 10.3233/JPD-191579](https://doi.org/10.3233/JPD-191579)

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