

# The On and Off of Parkinson's Disease

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Food and other factors play a role in the effectiveness of medications.

In this two-part series about the on and off of Parkinson's disease, Healthy Living magazine will first define the term on and off as it relates to Parkinson's and explore the role that food may play in the effectiveness of Parkinson's medications. Part 2 will discuss current medications, a new medication on the horizon and a procedure called Deep Brain Stimulation (DBS) in relation to the on and off of Parkinson's.

Dramatic swings in mobility and mood — many people with Parkinson's disease experience what is commonly called on and off periods. On refers to the state when the medication is working and symptoms are reduced. Off is the period of time when symptoms are present and prominent.

On and off states may occur once or several times in one day. Some notice these fluctuations very soon after starting medication to treat their symptoms, while others never have this experience. Most people, however, do notice some fluctuation of their symptoms during the course of a day. The time of day alone seems to have an impact. Symptoms are often worse upon waking in the morning, and again in the mid-afternoon. They may also vary according to when the medication has been taken, occurring minimally 90 minutes to two hours after the last dose of medication, and reappearing soon before the next anticipated dose. This reappearance is referred to as end of dose wearing off. There are many factors that affect an individual's medication, including food intake, fatigue and exercise.

Optimally, a physician's goal is to maximize the on time and minimize off time, as well as to minimize any potential side effects. Medications, dosage and timing are important considerations. Success requires knowledge of each medication's characteristics as well as an intuitive sense that is gained by experience. There are, however, some basic guidelines that are helpful.

Food has a negative impact on the effectiveness of Parkinson's medications. Generally, medications work better on an empty stomach. Pharmacists often recommend that they be taken with food to minimize the possibility of nausea. But high protein foods such as meat, eggs, and nuts can be especially problematic with levodopa (the active ingredient in Stalevo™ and Sinemet®). Eliminating eggs at breakfast or a hamburger at lunch will reduce off time. Again, each person is different and some may not experience a problem when combining medications with food. Protein is an essential part of a healthy diet and should not be eliminated. Before making any changes in one's diet or medication therapy, it is important to consult a physician. It may also be helpful to consult with a nutritionist at Eisenhower's Parkinson's Center to determine what works best for an individual's needs.

EVENTS PARKINSON'S FORUM — HOPE FOR THE FUTURE March 22, 2 to 4 p.m. Neal Hermanowicz, MD Gary Annunziata, DO Marvin Brooks, MD Call 760-773-1578 for information or reservations. Annenberg Center for Health Sciences at Eisenhower.

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