



# A GAME-CHANGING METHOD FOR IDENTIFYING PARKINSON'S DISEASE

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Carolinas Rehabilitation



Carolinas HealthCare System



## A GAME-CHANGING METHOD FOR IDENTIFYING PARKINSON'S DISEASE

Could the secret to early diagnosis of Parkinson's disease be found in saliva?

That's what a team at Carolinas Rehabilitation is investigating, hoping to identify people at risk for developing this debilitating disease years before symptoms begin.

Researchers discovered that during exercise, the brains of patients with Parkinson's disease produce proteins that indicate the disease is getting better. These proteins act as biomarkers that show up in patients' saliva.

These biomarkers may be especially important for diagnosing a disease that is often not detected until advanced stages. Unlike genetic testing for Parkinson's disease, which can be expensive or take a long time, saliva-based tests can be done with just a quick swabbing of the patient's mouth.

The study also provides some of the very first clues about what impact

exercise may have on the brains of patients with Parkinson's disease.

### RESEARCH HIGHLIGHT

Oral Biomarkers in Exercise-Induced Neuroplasticity in Parkinson's Disease  
*Oral Diseases*, November 2016

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"Knowing whether exercise affects disease progression gives patients living with Parkinson's disease a greater sense of control over the disease, such as choosing to exercise, which could potentially slow, stop or reverse the progression of the disease in the brain," says Mark A. Hirsch, PhD, director of Carolinas Physical Medicine & Rehabilitation Research Core Laboratory.

"This knowledge reduces anxiety and depression that many patients with Parkinson's disease experience after diagnosis," Dr. Hirsch adds.

First published in the international journal *Oral Diseases*, these findings are part of the implementation science research program of the RENEW Carolinas Parkinson's Initiative. The RENEW program – short for Research and Education in Neuro-Wellness – empowers Parkinson's patients with education, support and guidance, so they can live an active lifestyle and maintain or increase their independence.

Knowing that exercise may slow the disease, patients living with Parkinson's now have one more reason to choose an active lifestyle.



To learn more about this study, contact Dr. Hirsch:

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