



# BRAIN N' MOTION

## PARKINSON'S NEWS TO MOVE YOU FORWARD

3rd Quarter 2020

### CHOOSING YOUR HEALTHCARE TEAM

BY JOHN GABRIEL  
PACF PRESIDENT

Just as every person experiences Parkinson's differently and will have their own needs, your healthcare team will need to be individual and specifically tailored to help you to live your best life with Parkinson's. Good management of your condition – including physical, emotional and social needs - lies in getting the right treatment by the right person at the right time – there is no 'one size fits all'.

The best possible care will involve a multidisciplinary team, a group of specially-trained professionals who each have their own area of expertise and work together to treat your PD symptoms, both physical and emotional. Don't forget support and exercise groups. The care and support these experts provide complements the standard medical treatments your doctor will prescribe.

Importantly, the team will involve you, as well as your care partner, family and friends as they play a vital role in supporting your daily activities.

Together, you can live your best life now!

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**PARKINSON**  
ASSOCIATION OF CENTRAL FLORIDA

**LETTER FROM THE PRESIDENT**

**JOHN GABRIEL**  
**PACF PRESIDENT**

Dear Friends,

For many years people asked why Orlando didn't have a movement disorder center and those with Parkinson's, especially complex cases, had to travel outside of our area to receive comprehensive, wholistic care. Well, the Parkinson Association of Central Florida decided this had been a problem for too long and used your dollars raised through the annual Walk for Parkinson's to partner with then Florida Hospital, now AdventHealth to bring a movement disorder specialty program to Orlando.

In 2018 PACF committed to AdventHealth \$250,000 over the next five years to help recruit and hire a movement disorder specialist who could lead a multi-disciplinary program. The announcement was made to the public at the 2018 Brain and Beyond Conference and the Walk for Parkinson's. This partnership is just one of the ways PACF and AdventHealth sought to improve the care of those impacted in our community with Parkinson's.

I am pleased to share that in July 2020, AdventHealth recruited a physician leader who will assist in developing the future of movement disorder care in Orlando. That leader is Dr. Anwar Ahmed, who joined AdventHealth from the Cleveland Clinic in Ohio. Dr. Ahmed is a movement disorder specialist who served in multiple leadership roles in movement disorders in the Center for Neurological Restoration program and the Huntington Disease Center of Excellence. Dr. Ahmed, hit the ground running and began seeing patients in late July. Call his practice to make an appointment: 407-303-6729.

The Parkinson Outreach Center continues to offer a variety of support, education and wellness resources, and plans to expand this role of support in the movement disorder program. Call 407-303-5295 for more information.

Many of you have hoped that someday we would have the kind of care in Orlando that is found in other communities; that someday is today. PACF is dedicated to improving the quality of life for people with Parkinson's and their Care Partners, today and every day.

Gratefully Yours,

A handwritten signature in black ink that reads "John Gabriel". The signature is fluid and cursive, written over a light blue background.

John Gabriel  
PACF President



## CAREGIVER THOUGHTS KAREN MCRAINEY

**Is togetherness driving you crazy!** Yes, when we got married, most of us pledged to be there for our spouse in sickness and in health, for richer and for poorer, etc., etc., etc. But where did it say we'd be stuck together 24/7?! No one except maybe Stephen King ever imagined our world would be facing a pandemic which would rock our existence off its foundation and cause us to stay at home, limit our contact with friends and family for who knows how long? I know we didn't sign up for this!

Facing the changes happening with our Parkinson's partner is a big challenge by itself but adding these additional stresses can push us over the edge. How do we keep our relationship intact and preserve our own mental and physical health? Everyone has their own way of coping but here's a few things we've incorporated to help us stay sane.

Cultivate close contact with other Parkinson's care partners you trust. I have a small group of ladies whose partners are at all different stages of the disease, some early, some late and some already passed. Pre-pandemic, we met every other Tuesday at a local restaurant for Happy Hour. Now we meet weekly for our Zoom Happy Hour. We help each other with resources, sympathy, non-judgement and lots of laughter. Without the support of these wonderful friends, I'd be lost.

Get an exercise regimen set up for your partner and yourself. It's vital that at least some of it is outdoors or at a safe location just so you get a change of scenery and some sunshine Vitamin D. Fortunately, early in my husband's diagnosis, we joined the Pedaling For Parkinsons spin group developed by Debbie and Howie Apple at Crosby Wellness Center. We supplemented it with additional exercise programs through Advent Hospital. When that all went by the wayside due to the COVID-19 shut-down, we didn't know what we'd do. A few early morning walks were disrupted when the temps started to rise. We were happy when the Parkinsons health care community adapted by offering a variety of virtual classes. Sadly, there was no way to continue the spin bike classes but our wonderful coach, Lisa Hart was so concerned her class would begin to suffer from the lack of vigorous exercise that's so vital to Parkinsons patients, she worked with Crosby Wellness Center to come up with an alternative class – water aerobics for PD - Rule the Pool! She quickly got certified to teach and developed a class just for the spin group that's held 3 times a week at the Wellness Center pool. It meets all the requirements for our Parkinsons patients and their partners – it gets us out of the house in a safe environment, it's vigorous exercise that gives the entire body a workout and most important... it's fun!

An uncertain future makes us all anxious. Having loving support and activities to look forward to is so important. Grab whatever opportunities come your way.

### Family Caregivers of Adults

Nearly 40 million Americans provide unpaid care to an adult age 50 or older each year. In the spectrum of caregiver types, which one are you?



## WHY AM I DIZZY?

ROSE BABCOCK, PT, DPT, OCS, COMT

That's a great question, and a common one at that. In a Parkinson's study published earlier this year, researchers found that dizziness occurred in nearly half (46.3%) of the participants. So it's possible that almost half of those with PD may potentially struggle with this symptom, even in the early stages of the disease process. But what is dizziness, and how do you address it?

Dizziness can take on different forms depending on the cause. You could feel a spinning sensation, which is referred to as vertigo. Dizziness can also be a lightheaded sensation or even an unsteady or imbalanced feeling. Understanding which of these sensations you are feeling can help you figure out what is the underlying reason for your symptoms. Now that you can identify what you are feeling, the real detective work begins. How do you know what is the cause of your symptoms? There are so many possible reasons, but I'll discuss three of the most common reasons here.

### **Orthostatic Hypotension (OH)**

OH is VERY common in PD, and is one of the most common non-motor symptoms associated with Parkinson's. Do you get lightheaded or feel faint when you stand up quickly? That could be OH! With this condition, you get lightheaded when you stand up quickly your blood doesn't get up to your head quick enough to meet your brain's demand. This occurs immediately upon standing, but can occur up to three or more minutes after standing. So please, take your time getting up!

To assess this, your physician may have you check your blood pressure at home in lying down, sitting, and standing. Someone experiencing OH will have a significant drop in blood pressure with a change in position. You may also have some additional tests performed such as a Tilt Table Test, which similarly will assess your blood pressure in different positions, but under medical supervision. Your physician can help to determine what testing is needed and/or if a change of medication can help address this symptom.

### **Vestibular Dysfunction**

Your vestibular system is your internal gyroscope, located in your inner ear, which helps keep you oriented in space. Certainly a problem in this area could make you feel very dizzy. Often inner ear dysfunction results in a sensation of "vertigo" or spinning. This sensation can last for a few seconds when you roll over in bed, or for minutes or days at a time depending on the exact pathology. If your symptoms are true vertigo, it may be worthwhile to see an ENT doctor or neurologist for an assessment. A referral for Vestibular

Rehabilitation may help to decrease these dizzy sensations in daily life.

### **Gait Instability**

With progressing PD, instability is not uncommon. Often people refer to this symptom as an unsteady feeling or a disequilibrium, particularly when walking or trying to balance. Due to its prevalence, some consider gait instability as the 4th hallmark PD symptom, behind rigidity (stiffness), bradykinesia (slowness), and tremor. If left unchecked, gait instability can lead to falls and injury. If you feel imbalanced, your physician may recommend either adjustments to medications to help decrease off times, and/or send you for physical therapy intervention. Therapy focusing on balance and walking can help decrease this unsteadiness you feel, while helping prevent injury.

Although these are not the ONLY possible causes of your dizziness, these are some of the more conditions to consider. Don't ignore dizziness. Addressing your dizziness will help decrease your risk of falling and help you stay healthy and safe – just the way we like you to be.

### **Reference:**

Kwon K, Park S, Lee M et al. Dizziness in patients with early stages of Parkinson's disease: Prevalence, clinical characteristics and implications. *Geriatrics & Gerontology International*, 2020;20(5): 443-447.







# ASK THE DOCTOR

## DR. IRA GOODMAN, NEUROLOGIST, MOVEMENT DISORDER SPECIALIST

As we round the corner of late-summer, this persistent coronavirus continues to significantly impact our lives. As of this writing, however, there are encouraging results coming out of the many vaccine trials to prevent infection, as well those to successfully treat it. While we await vaccines and treatments, it remains critical to remain vigilant to avoid infection by following common sense guidelines that are recommended by experts in the field.

The majority of experts agree the new vaccine technology/treatment technologies are the keys to getting us back to normal – the sooner the better. In the meantime, the necessary restrictions to prevent COVID-19 infection can have a significant negative impact on Parkinson's Disease, both from the physical exercise standpoint as well as from an emotional standpoint. It takes extra effort to optimally maintain the physical movement component of therapy and mental state. Fortunately, we have the PACF to support these efforts with the various programs they offer. It is up to you to participate in therapy programs, including those offered by your physician as well as the PACF. When this pandemic is over, you want to be in the best condition to get a running start back to your normal way of life.

I would like to now address a few questions that have come up this month about Parkinson's Disease:

**Q: Are there any new symptomatic treatments available?**

**A: Recently, the U.S. Food and Drug Administration** approved a new delivery system for Apomorphine (Kynmobi), which had been available for years in an injectable form (Apokyn). This newly formulated apomorphine is simply placed under the tongue as needed during periods of "off times" (up to five times a day) and is effective in helping the person regain mobility very quickly. Apomorphine is in the class of medications termed dopamine agonists and is probably the most potent dopamine agonist available. Unlike others, it is taken on an as-needed basis, rather than taken routinely and daily. In addition to the known side effects of Apomorphine, any signs of oral irritation should be watched for but this new delivery system of Apomorphine does add another option.

Additionally, the FDA approved a new medication (Ongentys) that works along with levodopa carbidopa to lessen the amount of off time. It is similar to Entacapone (Comtan) that has been frequently prescribed along with levodopa carbidopa over the years (the combination pill is called Stalevo). This class of medication prolongs the effect of levodopa. An advantage of the new Ongentys is that it is taken only once daily in contrast to the need of taking the entacapone along with each dose of levodopa carbidopa (up to eight times a day).

The FDA also has approved a new medication to reduce off episodes. Nourianz is used along with levodopa carbidopa to increase "on time." While other medications typically target the dopamine pathway, this medication has a new target, the adenosine receptor. Available in Japan for many years, it is now available as a treatment option in the U.S.

Though there are now many options to treat the symptoms of Parkinson's Disease, we anticipate true disease-modifying treatments will be coming to market. Treatments targeting the pathological proteins associated with Parkinson's Disease, as well as treatments targeting inflammation in the brain (which appears to be a significant component of many neurodegenerative diseases), are continuing into later clinical trial phases.

**Q: If I have Parkinson's Disease, should my children consider genetic testing?**

**A:** For years it was believed there was little – if any – genetic component to Parkinson's Disease. However, that is not the case and there are multiple genes associated with an increased risk of developing the illness. The majority of these risk genes do not determine that a person will develop Parkinson's, but only that the person may be more susceptible. There are some gene mutations that will significantly increase a person's risk of developing Parkinson's. These are very rare and are more often seen when Parkinson's is present in multiple family members

(Continued on Page 7)

# FREE MEMORY TEST



Synexus is promoting the importance of awareness, early detection and prevention of memory loss. There is so much that we still need to learn need to learn about Alzheimer's Disease.

If you or a loved one is 50 years of age or older, you may be able to help contribute to understanding this disease.

**CALL TODAY**  
**407-591-3441**

Or visit [SynexusFL.com/participate](http://SynexusFL.com/participate)



## ASK THE DOCTOR DR. IRA GOODMAN, NEUROLOGIST, MDS

(Continued from Page 5)

and generations, and it typically begins at a young age. Unless there is one of these “monogenetic” forms of inherited Parkinson’s Disease with a strong family history, there would appear to be little benefit in genetic counseling. If genetic counseling is performed, it should be conducted by a trained genetic counselor to avoid misconceptions.

The most common genetic mutation to cause Parkinson’s Disease is a GBA (Glucocerebrosidase) gene mutation, which continues to be a rare occurrence. Gene therapy may be a valuable treatment option for the rare person whose Parkinson’s is on the basis of this particular mutation. We hope to hear more about this in the next few months so stay tuned

When I am asked about inheritance risks and Parkinson’s Disease, I tend to reply: In general, there is a 99% chance a person will never develop the disease. If a parent has it, there is still a 98% chance the child will never develop Parkinson’s and that the risk remains extremely low.

I encourage you to stay safe, healthy and active. Now is the ideal time to concentrate on optimizing your physical and mental states in preparation to resume your normal life style and be in better condition than before.

Please send any questions you might have about Parkinson’s Disease or other movement disorders through our website and we will be sure to address them.  
Ira Goodman MD

**Ask the Doctor** is a free resource to the parkinson community, questions are fielded by Dr. Ira J. Goodman, MD who is a Board Certified Neurologist in Central Florida. You may ask Dr. Goodman a question using the [form](http://www.parkinsoncf.org/ask-the-doctor) on our website and he will respond <http://www.parkinsoncf.org/ask-the-doctor>

[Dr. Ira J. Goodman, MD](#) serves as the Medical Director at Synexus and is a member of the Parkinson’s Association’s Advisory Board. Dr. Goodman is Board Certified Neurologist specializing in memory disorders and Parkinson’s disease. His private practice, The Compass Clinic, is located downtown Orlando.



# HELP WANTED

## PD Link Central Florida is looking for Volunteers!

Here is your chance to give back! Help others by offering support from the comfort of your own home.

### Requirements:

- Have been diagnosed with Parkinson’s or have been caring for someone with Parkinson’s at least one year
- Able to talk by phone or email
- Complete Short Orientation

## Apply TODAY!

Contact Parkinson Outreach Center 407-303-5295 or Email: [Alissa.Taylor@adventhealth.org](mailto:Alissa.Taylor@adventhealth.org)

## ADVENTHEALTH PARKINSON OUTREACH CENTER

The AdventHealth Parkinson Outreach Center is offering support groups, exercise and wellness programs virtually for people with Parkinson's disease and their loved ones. All meetings are FREE to attend!  
Call 407-303-5295 or email [ORL.parkinson@adventhealth.com](mailto:ORL.parkinson@adventhealth.com) for more information.

### \* IMPORTANT PLEASE NOTE: \*

We apologize for the inconvenience however, all in person support groups and classes continue to be cancelled until further notice for the safety of our Parkinson's patients and community. We are offering the following virtual support groups:

[Virtual Caregiver Support Meeting](#) - Offered on Tuesday's from 2:00pm to 3:00pm for all Care Partners and Caregivers. Join us for an open discussion and Q&A from the comfort of your home using your computer, iPad or phone. Call 407-303-5295 for the link to join.

[Virtual PD Support Group Meeting](#) - Offered on Thursday's from 3:00pm to 4:00pm, join us for a virtual, online meeting from the comfort of your home and using your computer. This meeting is open to PwP's and carepartners of all ages and stages. Call 407-303-5295 for the link to join.

[Movement as Medicine Virtually](#) - Held on the 1st and 3rd Thursday of each month from 1:15pm to 2:45pm via Zoom. Join us for a virtual class from the comfort of your own home. Movement as Medicine class is designed for people battling Parkinson's disease and addresses issues of rigidity, balance, slow movement and spatial awareness through the use of creative, therapeutic movements and dance. Participants are empowered to explore motion with music in ways that are enjoyable and stimulating. The class also helps people with issues such as depression, physical confidence, motor skill challenges and cognitive concerns. Call 407-303-5295 for the link to join.

[Virtual YOPD Meetings](#) - This Parkinson Support group offered on Wednesday's from 10:00am to 11:00am is designed especially for those aged 50 and younger who have been diagnosed with PD. Virtual Support groups are being offered at this time. For more information please call 407-303-5295.

[Music Therapy Virtually](#) - Offered on the 2nd and 4th Tuesday of the month from 12-1 pm. Join us online and enjoy the experience of Music Therapy Virtually! This is a great chance to work on your vocal exercises, communication, motor movement and cognition with a Board Certified music Therapist (MT-BC) from AdventHealth. This is a fun, stress free class and so incredibly important and beneficial for all Persons with Parkinson's. This is a Free class and all are welcome. Call 407-303-5295 for the link to join.

[Nova Virtual Speech Therapy and Support](#) - "Speech Treatment to Improve Speaking Skills" In partnership with the Nova Southeastern University (NSU) Speech and Language Department, we are offering a series of educational support groups on various Parkinson's topics for both the PwP and the care partner virtually on Monday and Friday from 2:00pm to 3:00pm. Call 407-303-5295 or email [ORL.parkinson@adventhealth.com](mailto:ORL.parkinson@adventhealth.com) for more information.





## ADDITIONAL PROGRAMS OFFERED BY THE PARKINSON OUTREACH CENTER

### SOCIAL WORK SERVICES AND CARE CONSULTING

Did you know that you have access to a Parkinson's social worker? The Parkinson Outreach Center offers free consultation with a Parkinson's clinical social worker for the individual and family to help guide you towards your goals of understanding the disease and ways to help you manage it. The social worker can assist you in finding resources and programs that will help you live well today. To learn more or make an appointment, call 407-303-5295.

### MULTIPLE SYSTEM ATROPHY SUPPORT GROUP

New! We now offer a support group for those diagnosed with Multiple System Atrophy (MSA) and their loved ones. Offered quarterly, this group will include educational presentations, activities for the patient and caregiver support sessions. If you would like to join, please call the POC at 407-303-5295.

### LIVING OUT LOUD

LOL is a monthly voice group therapy program offered to those who have completed the LSVT Loud therapy. This program is offered on the 3rd Wednesday of each month from 12:15 - 1:00pm. Please call 407-303-7600 for more information.

## EDUCATIONAL RESOURCES

Patient education, caregiver information, program details and a full support group guide are available by phone 407-303-5295, by email at [ORL.Parkinson@adventhealth.com](mailto:ORL.Parkinson@adventhealth.com) or by visiting our website at [AdventHealthNeuroInstitute.com](http://AdventHealthNeuroInstitute.com).

## PROGRAMS OFFERED AT ADVENTHEALTH CELEBRATION

### PEDALING FOR PARKINSON'S

Pedaling for Parkinson's is an indoor cycling program that provides a safe and effective way for Parkinson's patients to combat symptoms and improve motor function. Under the supervision of an exercise physiologist, patients will be coached to maintain a cycle speed of 80-90 RPM's, to increase cardiovascular fitness and improve motor control. This program is temporarily cancelled due to COVID-19. Please call 407-303-4400 or email [Adam.Daniel@adventhealth.org](mailto:Adam.Daniel@adventhealth.org) for reopening dates.

### PWR! MOVES

This group class starts with the repetitive training of four foundational skills that make up everyday function. The class emphasizes learning what optimal function should feel like, so you can move more quickly and freely during your daily activities. This class is held on Mondays and Thursdays from 10:00 -11:00 am. To register, call 407-303-4400.

### PARKINSON SUPPORT GROUP AT CELEBRATION

This support group meets on select dates in the Palms Conference Room at AdventHealth Celebration and offers educational presentations and group meetings. For more information, call 407-303-5295.

## EXERCISE FOR PARKINSONS

BY CYNTHIA BADRACK, RSB OWNER/INSTRUCTOR

While much of the world is shut down, people with Parkinson's are still fighting back against their disease. Fighting back may look different today than it did six months ago, but it's no less vital our boxers' daily lives. We've heard countless stories of boxers from all over whose lives have been changed by participating in a Rock Steady Boxing program. Our classes may not be offered in person at the moment, there is still a great need to provide the resources, instruction and camaraderie that is so important to fighting back.

WHAT IS ROCK STEADY BOXING ... We are learning every day that there are ways in which people with Parkinson's disease can enhance their daily quality of life and improve their balance, coordination and overall body strength. Improving your quality of life builds confidence and helps to maintain independence.

RSB is a NON-contact form of exercise. Researchers have validated physical and neurological improvement in Parkinson's patients participating in intense, forced workouts. These studies have shown that those participating in this program can see delay, reversal and/or reduction in symptoms. Although exercise cannot increase dopamine levels, forced intensive exercises have proven to help the

body/brain use its dopamine more efficiently and increase the neuroplasticity of the brain.

Rock Steady Boxing exists for one reason - to empower people with Parkinson's disease to "fight back." RSB was started as a nonprofit in Indianapolis in 2006 by a man who had been diagnosed with early-onset Parkinson's. Today there are Rock Steady Boxing gyms all over the country and you can find outposts in Europe, Africa, and Asia.

Call or email Cynthia for more information: Phone: 917-853-9102 Email: [centralflorida@rsbaffiliate.com](mailto:centralflorida@rsbaffiliate.com)



## How to donate with amazon smile

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AmazonSmile is a simple way for you to support your favorite charitable organization every time you shop, at no cost to you. When you shop at [smile.amazon.com](https://smile.amazon.com), you'll find the exact same low prices, vast selection and convenient shopping experience as Amazon.com, with the added benefit that Amazon will donate 0.5% of your eligible purchases to the charitable organization of your choice.

## ADVENTHEALTH WELCOMES DR. ANWAR AHMED

### Announcement

AdventHealth Medical Group Welcomes Neurologist  
Anwar Ahmed from the Cleveland Clinic

AdventHealth Medical Group Neurology  
at Winter Park  
1573 West Fairbanks Avenue, Suite 210  
Winter Park, FL 32789  
407-303-6729 | 407-628-2037 FAX

Continuing our tradition of bringing top medical talent to Central Florida, AdventHealth Medical Group is proud to announce the arrival of Dr. Anwar Ahmed as our Medical Director of Neurology and another highly respected member of our elite and expanding neurology team in Winter Park.

Dr. Ahmed is a board-certified neurologist with special interests in movement disorders including tremors, Parkinson's disease, Huntington disease and related neurodegenerative disorders, as well as dystonia. He joins our group from the Cleveland Clinic in Ohio, where he served in multiple leadership roles in movement disorders in center for neurological restoration program and the Huntington Disease Center of Excellence. Before spending the last 12 years at Cleveland Clinic, he was Director of the Deep Brain Stimulation Program and of Clinical Research on Movement Disorders at the Barrow Neurological Institute in Phoenix. He is currently a Diplomat of the American Board of Psychiatry and Neurology. He is also a Fellow of American Academy of Neurology (FAAN).

Growing up in Pakistan, Dr. Ahmed had an older brother and sister who became physicians, and he too developed a fascination with the workings of the human body – especially brain function. After earning his medical degree from the esteemed Dow Medical College in Karachi, he completed an internship at Mount Sinai Medical Center in New York, followed by his neurology residency at Detroit Receiving Hospital and University Health Center in Detroit, a fellowship in surgical approaches

to movement disorders and motor physiology at Columbia-Presbyterian University Medical Center in New York, and a clinical research fellowship in movement disorders at the Cleveland Clinic. Dr. Ahmed is highly experienced neurologist whose research and published works have focused on such topics as unusual movement disorders, treatment of tremor caused by multiple sclerosis, brain stimulation for movement disorders, and Parkinson's disease.

Welcome, Dr. Ahmed!



## PARKINSON'S RESEARCH NEWS: BASIC SCIENCE

### FIRST PATIENTS DOSED IN CLINICAL TRIAL INVESTIGATING ANVS401 AS TREATMENT FOR PARKINSON'S AND ALZHEIMER'S

BY DAVID MELAMED, PHD., SEPTEMBER 2020 - PARKINSON NEWS TODAY

The first three patients have been dosed in a Phase 2a clinical trial investigating the safety and effectiveness of ANVS401, Annovis Bio's lead compound designed as a potential treatment for Parkinson's and Alzheimer's diseases.

The launch of the Phase 2a trial (NCT04524351) marks the second such study investigating ANVS401, and the first to enroll patients with Parkinson's disease. Annovis expects to share initial data in early 2021 and final data by late summer 2021.

The trial is currently recruiting and information about eligibility and locations is available [here](#).

“Beginning treatment in our second Phase 2a study is a major milestone for Annovis,” Maria Maccacchini, PhD, CEO of Annovis, said in a press release. “This brings us one step closer to evaluating whether our approach may translate into a novel treatment option for patients suffering from a range of neurodegenerative diseases.”

The progression of both Parkinson's and Alzheimer's disease involves the buildup and aggregation of toxic proteins in the brain. In Parkinson's, the protein that aggregates (clumps together) is called alpha-synuclein; in Alzheimer's, it is the beta-amyloid and tau proteins.

These protein aggregates can disrupt communication between nerve cells in the brain, disrupting normal function and eventually leading to cell death.

ANVS401, which also is known as Posiphen, is designed to block the production of all three proteins, acting as a potential first treatment for both Parkinson's and Alzheimer's. The medication inhibits a process known as translation, the final step of protein production in which a messenger RNA transcript of a gene is “read” and transformed into a protein.

Pre-clinical in vitro (in the lab) studies using human and mouse cells have shown that toxic protein levels decreased following exposure to treatment.

Furthermore, pre-clinical studies using two mouse models found that gastrointestinal symptoms associated with early Parkinson's eased significantly after treatment with ANVS401.

According to Annovis, ANVS401 reduced the levels of neurotoxic proteins, improved nerve cell communication, lowered inflammation, and restored healthy nerve cells in both Alzheimer's and Parkinson's mice.

Annovis patented the ANVS401 treatment in February, and received approval in July to launch the new Phase 2a study from a central institutional review board (IRB).

The study will enroll a total of 68 patients at 15 sites across the U.S., including 28 with either early stage Parkinson's or Alzheimer's (14 of each) for the first part of the trial, and another 40 patients with early Parkinson's disease for the second part.

The first part will evaluate the safety and effectiveness of daily 80 mg ANVS401 capsules over a 28-day treatment course, with some patients receiving the treatment and others receiving a placebo for comparison.

Enrolled patients will be required to make clinical visits at the beginning and end of the treatment period to monitor for adverse reactions to the treatment, evaluate motor symptoms, and collect blood and cerebrospinal fluid (the liquid that surrounds the brain and spinal cord, CSF) for analysis.

The second part of the study will compare different doses of ANVS401 by randomly assigning 10 Parkinson's patients into four dosage groups — 40 mg, 20 mg, 10 mg, 5 mg — and monitoring safety and effectiveness between them.

With the launch of the new clinical trial, Annovis is taking precautions with regard to the COVID-19 pandemic by spreading testing sites geographically, and opening testing sites only in regions with lower incidence rates of the virus.

“While COVID-19 has previously delayed trials for most biopharma companies, including the start of this trial, having a diverse mix of study sites should afford us the opportunity to maintain recruitment and treatment schedules moving forward,” said Maccacchini.

Another ongoing Phase 2 DISCOVER clinical trial (NCT02925650) is evaluating the safety, tolerability, and effectiveness of ANVS401 in 24 patients with early Alzheimer's disease, and currently is recruiting participants. [https://parkinsonsnewstoday.com/2020/09/03/first-patients-dosed-clinical-trial-anvs401-treatment-parkinsons-alzheimers/?utm\\_source=PAR+E-](https://parkinsonsnewstoday.com/2020/09/03/first-patients-dosed-clinical-trial-anvs401-treatment-parkinsons-alzheimers/?utm_source=PAR+E-)



# CAN DIET REDUCE RISK OF PARKINSON DISEASE?

BY MATTHEW GAVIDIA, SEPTEMBER 2020, AJMC

A healthy diet consisting of fruit, vegetables, and whole grains in middle age may be associated with fewer non-motor symptoms known to precede the diagnosis of Parkinson disease, according to study findings.

A healthy diet consisting of fruit, vegetables, and whole grains in middle age may be associated with fewer non-motor symptoms known to precede the diagnosis of Parkinson disease (PD), according to study findings published in *Neurology*.

In managing risk of PD, there are several symptoms that are known to occur 10 or more years before movement issues begin. These non-motor symptoms, which include constipation, daytime sleepiness, and depression, could have vital implications in the pathogenesis of the condition as a previous study spotlighted the role of various gastrointestinal and sensory deficits, which are more prominent in those with PD, in exacerbating adverse effects linked with PD.

As indicated in that prior study, dietary management can help relieve symptoms such as constipation, as well as address insufficiencies in nutrient intake. Researchers of the current study sought to assess the relationship between diet pattern and prodromal features of PD, particularly how closely people's diets followed either the alternate Mediterranean diet (aMED), similar to the Mediterranean diet but with only whole grains and no dairy, or the Alternative Healthy Eating Index (AHEI).

The study recruited 47,679 people from the Nurses' Health Study and the Health Professionals Follow-up study, who were asked about their diet every 4 years since 1986 when they were middle-aged. In 2012, the study cohort was polled on if they had 2 conditions that are common in people later diagnosed with PD, which are constipation and rapid eye movement sleep behavior disorder. Later in 2014 and 2015, 17,400 of the participants were asked about 5 more symptoms that can precede PD: loss of sense of smell, impaired color vision, excessive daytime sleepiness, body pain, and depression.

Multinomial logistic regression was utilized to estimate the association between baseline (1986) diet pattern score quintiles and number of prodromal features (0, 1, 2, or  $\geq 3$ ) in 2012-2015. "Additional analyses investigated the association between long-term adherence to these dietary patterns over 20 years and prodromal features suggestive of PD," expanded the study authors.

In the study findings, people with the highest adherence to aMED were less likely to have 3 or more symptoms that precede PD than the people with the lowest adherence

at baseline (odds ratio [OR] = 0.82; 95% CI, 0.68-1.00; false discovery rate (FDR) adjusted Ptrend = .03) and after long-term diet (OR = 0.67, 95% CI, 0.54-0.83; FDR-Ptrend < .001). Results were found to be equally strong for the association with AHEI scores, with higher adherence to these diets also inversely associated with individual features, including constipation, excessive daytime sleepiness, and depression.

"While this study does not show cause and effect, it certainly provides yet another reason for getting more vegetables, nuts and legumes in your diet," said lead study author Samantha Molsberry, PhD, of Harvard University. "More research is needed to determine whether eating a healthy diet could delay or even prevent the development of Parkinson's disease among people who have these preceding symptoms already."

#### Reference

Molsberry S, Bjornevik K, Hughes KC, et al. Diet pattern and prodromal features of Parkinson disease. *Neurology*. Published online August 19, 2020. doi:10.1212/WNL.0000000000010523



# PACF IN THE COMMUNITY

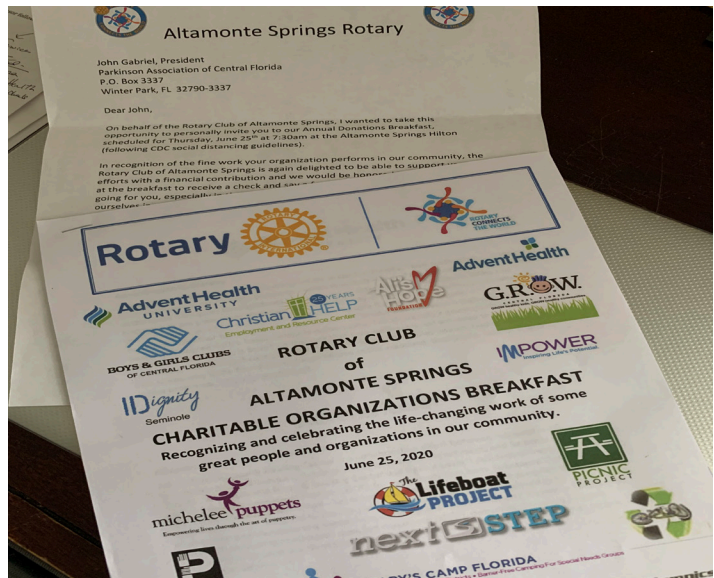
## AdventHealth Orlando

Thank you to the Parkinson Association of Central Florida

*"Wow. Thank you to the Parkinson Association of Central Florida for providing 735 meals to our team today! We appreciate this wonderful donation."*



Thanks to your support of our community, we were able to provide meals to all shifts in partnership with the AdventHealth Foundation COVID-19 Relief Fund. Their staff greatly appreciated this meaningful gesture and loved receiving the meals.



We were incredibly honored to receive this community service award from such a well-respected organization and humbled to be included with the other non-profits serving our local community.





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AdventHealth Parkinson Outreach Center, the Parkinson Association of Central Florida and Synexus of Florida are **committed** to raising awareness of Parkinson's disease, offering programs and **resources** for those living with the disease and furthering the research of **new treatments**. We believe that combining our efforts to deliver **important**, breaking news in the PD community would help us reach more people **impacted** in the Central Florida community.

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