

## TU B'SHVAT - RETURN TO THE SOURCE

Tu b'Shvat is the ראש השנה לאילנות, a New Year Celebration for the fruits of the trees. What is the significance of this festivity? What message does it impart, and what is our עבודה, our spiritual work, regarding this ראש השנה?



A human being is composed of two components; his physical being, the body and all its parts, and his spiritual being; the Neshama and its life-giving energy. Each part of Man requires a source of sustenance. The Arizal revealed that in every food article, as well, there exists two dimensions, each sustaining a different part of Man. The physical part of food, the portion that retains natural nutrients, sustains Man's material body, while the spiritual energy in the food, the divine spark of Hashem, sustains the Neshama of Man.

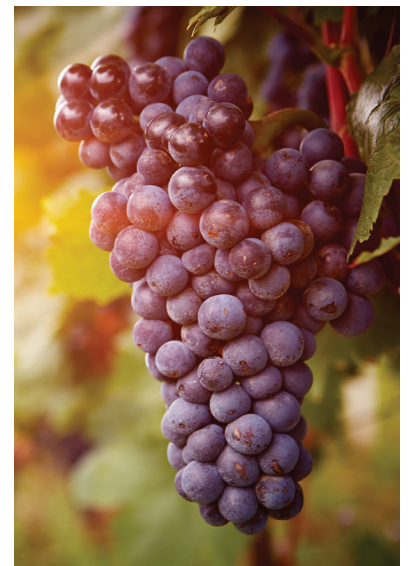
A similar idea is found in the ספר "בית חדש" (ב"ח), או"ח סימן ר"ח, who explains the words we say in the ברכה of עיל המחיה. We thank Hashem for giving us the land of ארץ ישראל, in order: לאכול מפריה ולשבוע ממנו, so we can 'eat its fruits and enjoy the goodness of the land'. The מור finds these words difficult, for חז"ל tell us that we should not desire ארץ ישראל for its physical bounty, rather, to fulfill the התליות בארץ, the special מצות that can only be fulfilled in the land. The ב"ח explains that the intent of the ברכה is not to enjoy the physical dimension of the fruits, rather, to absorb and experience the extra potent spiritual energy that lies within the

fruits of the Holy Land.

The root of all existence is its heavenly source. All that exists begins as divine form in the higher worlds, making its way down to our world, wherein the spiritual energy transforms into a physical object. The spiritual origin of every matter is its 'head', the high point where it all began, while the final form is like its 'foot', the furthestmost point from where it originated.

Tu b'Shvat is the interface moment between the higher reality and the lower one. The instant when the spiritual descends to manifest into the physical; when the 'head' of the reality 'touches' its 'foot'. It is a truly a ראש השנה wherein we can yet sense the ראש injecting energy and vitality into the fruits.

Our עבודה is to be aware of this ראש phenomenon, to become cognizant of the fact that all fruit, all things, have a ראש, a spiritual source. To prompt ourselves to constantly realize that the true reality of all creation is the דבר השם, the energy from above generating and sustaining the whole world. This 'Tu b'Shvat consciousness' will serve as an impetus to transform the way we eat all year long; to consume foodstuff with a newfound awareness, with a recognition and appreciation for the He who created and maintains all of creation.



חג שמחה!

Rabbi Tzvi Fener

# Low Blood Pressure & Parkinson's Disease

During a regular medical appointment, checking your blood pressure is always part of the preliminary testing. Typically, your physician is checking for high blood pressure, aka hypertension. During a neurology visit, or any medical appointment for an individual with Parkinson's, the physician also pays close attention to rule out low blood pressure, aka hypotension. **It is vital to notify any medical professional that is involved in your care that you have a diagnosis of Parkinson's Disease in order they check for the above condition.**

## Orthostatic Hypotension

Parkinson's patients can suffer from orthostatic hypotension – low blood pressure and lightheadedness upon standing up.

## PD in the emergency room

Many times, when PD patients 'pass out' and head to the emergency room, the ER personnel confuse their symptoms and treatment. They assume that the patient's issue is with their heart.

However, with Parkinson's disease, the vast majority of 'passing out' is caused by low blood pressure – an autonomic nervous system dysfunction in combination with dopaminergic medications. In addition, levodopa and dopamine reduce your blood pressure. The mistake many emergency departments make is ordering expensive cardiac workup's, instead of simply managing Parkinson's autonomic symptoms and medications.

## Symptoms of low blood pressure

The American Heart Association lists the following symptoms as important potential indicators of low blood pressure (hypotension): Confusion, Dizziness or lightheadedness, Nausea, fainting leading to falling (medical doctors call this syncope), Fatigue, Neck or back pain, Headache, Blurred vision, Heart palpitations, or feelings that your heart is skipping a beat, fluttering, or beating too hard or too fast.

## Bottom line information re: low blood pressure in Parkinson's

- ◆ Your blood pressure should be checked at every visit.
- ◆ Both medications and the Parkinson's itself can contribute to orthostatic hypotension.
- ◆ The number one priority in treating orthostatic hypotension is preventing falls & fall related morbidity.
- ◆ Drink lots of water, and remember to take your blood pressure 1 hour after taking your levodopa, as that is when your blood pressure will be at its minimal level.
- ◆ Drink a bottle of water every time you take a levodopa dose as this will combat the effects of levodopa in lowering blood pressure.
- ◆ There are very severe cases which may require autonomic testing, tilt tables and consideration of specialty medicines.
- ◆ The two most common Parkinson's medications which may lower blood pressure are levodopa (dopamine) and dopamine agonists.



- ◆ The other medications to watch out for, may include Parkinson's folks who are on tricyclic antidepressants for depression or sleep.
- ◆ The non-Parkinson's medications are the biggest offenders and are most commonly antihypertensives.

### What is the correct way to check for orthostatic hypotension?

A total of three blood pressure readings should be performed. It is far cheaper to start the work-up of 'low blood pressure' by checking what are called 'orthostatics' as the first step in a workup. Orthostatic blood pressures are checked by performing blood pressure when laying down, followed by sitting up for 3 minutes. In some cases, you may need to repeat for longer than 1-3 minutes in each position.

### A description of what plays out in Parkinson's is when one gets out of bed or stands up from a chair

- ◆ The blood pressure drops.
- ◆ The body may keep this response in check by releasing a chemical called norepinephrine or norepi. norepi causes your blood vessels to contract or tighten. When norepi is released, blood is redirected from the legs to the brain. When this process occurs, the hope is that enough blood gets to your brain so you do not 'pass out.'
- ◆ If you have Parkinson's disease you have less norepinephrine, and the response of your autonomic nervous system to release norepinephrine may be impaired.
- ◆ When your blood pressure drops when you change position, it is called 'orthostatic hypotension.' If it is caused by a neurological disease like Parkinson's, we refer to it as 'neurogenic orthostatic hypotension'.



### What are other causes of orthostatic hypotension?

Aside from PD, there may be other causes which contribute to worsening of your orthostatic hypotension symptoms, such as: Dehydration, Antidepressants, Diuretics, Drugs used for folks who have trouble urinating, Drugs used for erectile dysfunction, Drugs for high blood pressure, Heart problems, Anemia.

### How do we define worrisome orthostatic hypotension?

- ◆ If you experience lightheadedness, dizziness, or weakness, when you stand up after sitting or lying down, check for orthostatic hypotension.
- ◆ If you have a drop of at least 20 millimeters of mercury in systolic blood pressure (top number) and 10 millimeters of mercury in diastolic blood pressure (bottom number) within three minutes of sitting up or standing up— you have orthostatic hypotension.

## How does one treat orthostatic hypotension?

- ◆ One must always prioritize fall prevention as the number one goal.
- ◆ Hydration is important. One cold glass of water in the morning wakes up the autonomic nervous system.
- ◆ 6-8 glasses or bottles of water a day.
- ◆ Education of slow and steady position changes from laying to sitting, and from sitting to standing. Slow and steady, with a plan to sit back down if dizzy or lightheaded, is a key to success.
- ◆ Discussion with the general doctor about the risks and benefits of reduction or elimination of antihypertensive medications.
- ◆ Discontinuation of dopamine agonists and using a levodopa only regimen if possible.
- ◆ Elimination of other medications which may be contributing (e.g. TCA antidepressants, prostate drugs, etc.)
- ◆ Compression stockings or an abdominal binder.
- ◆ Consideration of fludrocortisone, midodrine or droxidopa.
- ◆ Sometimes in severe cases eating small, frequent meals, reduce alcohol consumption, and avoiding hot drinks and hot foods may help.
- ◆ Increasing salt intake for those who the general doctor agrees it is appropriate and safe (e.g. pretzels).
- ◆ Limit exposure to outside activities when a high heat index.



## What are counter-maneuvers you can employ when you first detect orthostatic hypotension symptoms 'coming on'?

There are physical counter-maneuvers you can learn and employ for orthostatic hypotension. You can use them as soon as symptoms appear. You can proactively use them if you know you will be standing for a long period of time.

- ◆ Contracting muscles below the waist (hold contractions for 20-30 seconds)
- ◆ Toe-raising
- ◆ Leg-crossing and contraction
- ◆ Thigh muscle co-contraction
- ◆ Bending at the waist (however, this one we usually don't recommend for Parkinson's).
- ◆ Slow marching in place
- ◆ Leg elevation



# EXPLORING THE BRAIN-GUT Connection

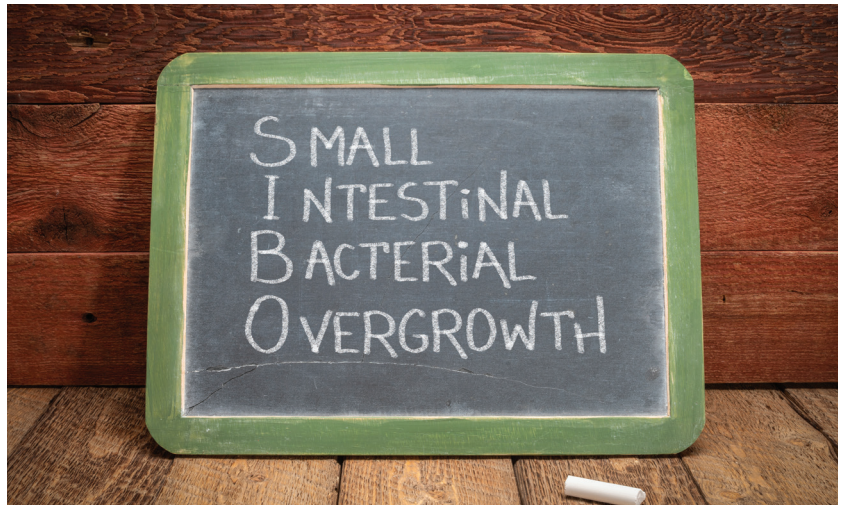
With Dr. Wael El- Nachef

This month's educational event, titled Exploring the Brain Gut Connection, was an overview of Parkinson's Disease and gastrointestinal symptoms and approaches to treating these issues. We were honored to host Dr. Wael El- Nachef, who so kindly shared his expertise in gastroenterology. Dr. El- Nachef is unique in the fact that together with his knowledge of gastro, he's also devoted years of research to Parkinson's and the neurological connection to gastro as well.

Dr. El- Nachef delivered a fascinating talk, full of extremely valuable information. People found the event to be helpful, hopeful, and inspiring. The feedback that we've been receiving has been overwhelmingly positive. Due to the considerable amount of insight and information that Dr. El- Nachef shared, versus the limited space we have here in the newsletter, our synopsis will suffice to mention only a few of the many points he discussed. For the rest of the valued material, we highly encourage watching the video of the event on the LifeSpark website (under the 'education' tab).

## THE GI (GASTROINTESTINAL) TRACT

If you are a person living with Parkinson's, or you know someone with Parkinson's, there are symptoms that we can see, like the tremor or the gait, and symptoms that we cannot see, such as non-motor symptoms like the loss of smell. The symptoms we cannot see are what really drive the quality of life in Parkinson's. There are limited treatments available for many of these other symptoms. One of the most common non-motor symptoms are the gastrointestinal [GI] issues.



The gastrointestinal system is made of multiple organs, the esophagus, stomach, small intestine, and colon. Each part of the GI tract shows a different type of symptom. In the esophagus, one can get dysphagia or difficulty swallowing, in the stomach one can get gastroparesis or a partially paralyzed stomach. In the small intestine one can get intestinal bacterial overgrowth, with excess bacteria in the intestine, or constipation. Some of the other issues can be bloating, weight loss, absorption of meds, difficulty swallowing. However, these symptoms can overlap, i.e., the colon can show symptoms that are associated with the stomach, and the small intestine, as well, can show malnutrition problems usually associated with the stomach.

## THE GUT'S EFFECT ON THE BRAIN

Research shows that the brain-gut connection isn't a one-way street, wherein the Parkinson's is-

sues in the brain effect the organs in the GI tract, rather, the gut can also cause problems in the brain. For example, issues in the gut, like constipation and bloating, can trigger the onset of Parkinson’s in the brain. People fail to realize that the intestinal system has a huge nervous system of its own. There is the same amount of nerve cells in your intestinal tract as there are in your spinal cord. And as nerve cells are connected to our brain, there’s a literal connection between the brain and the gut. These cells serve as highways for alpha-synuclein (the pathologic protein that causes the loss of dopamine cells) to travel into and effect the brain.

## SIBO

The Doctor presented many highly informative and interesting case-studies, including detailed medication options. One presentation was regarding a diagnosis occasionally found in PD patients called SIBO. While general bloating is caused by constipation, once under control the bloating goes away. There are cases where the constipation continues and can be attributed to SIBO (small intestinal bacterial overgrowth). SIBO is not a normal infection of unhealthy bacteria, rather, it is the excessive presence of the normal bacteria found in the intestine. Since a PD patient is not clearing out their stomach properly, the bacteria develop an overgrowth that causes issues. Traditionally, SIBO is treated with antibiotics, however, in Parkinson’s a relapse is commonly seen after about six months. So, additional treatments need to be explored. The Doctor continued to present theories and medical options for this issue.

## DYSPHASIA




Another diagnosis touched upon was dysphasia (difficulty swallowing.) One type of dysphagia is the difficulty of transferring food from the mouth to the throat – that is called oropharyngeal dysphagia. Another type is where the food gets stuck in the esophagus – that is called esophageal dysphagia. Many Parkinson’s patients have oropharyngeal but can experience esophageal problems as well. It is important to address dysphagia, as it can increase the risk of aspiration pneumonia, wherein the food one tries to swallow comes back up and into the lungs. Speech Pathologists are experts in swallowing issues and can assess the type of dysphagia and present a treatment plan.

*As mentioned, this is a sampling of the presentation, please see the video online to watch in its entirety.*

### STANDING WEEKLY CLASS SCHEDULE:

Kaftheil Wellness Center  
1200 River Ave. Unit 9d  
Lakewood, NJ 08701

Monday Tuesday Wednesday Thursday

<p><b>ACTIVE MOVEMENT</b></p> <p>AVIVA POLTER, CPT, CFP, CBI, CTI</p>  <p><b>WOMEN 9:30</b></p>	<p><b>CIRCUIT TRAINING THERAPY</b></p> <p>AVI DEVOUR</p>  <p><b>MEN 2:30</b></p>	<p><b>BALANCE AND CORE STRENGTHENING</b></p> <p>BATYA KASSOVER, CPT</p>  <p><b>WOMEN 9:40</b></p>	<p><b>PARKINSONS SPECIFIC BOXING</b></p> <p>AVI DEVOUR</p>  <p><b>MEN 2:30</b></p>
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Now inviting Caregivers to Join our Classes!

All classes have an option to join live virtually via zoom. 24 hour notice required. Call 732.806.1133 ext 301 text 732.443.0071 whatsapp 732.534.6388 paulette@lifesparkpd.com. Fee is \$15 per class.



## KEY ENZYMES

### **Researchers work to discover the main causes of Parkinson's Disease**

Two new projects are using cutting-edge technology to understand how brain cell changes may lead to Parkinson's. Both studies could also open the door to new treatments for the condition, with one seeking to develop a "complete and accurate model of Parkinson's in a dish" and the other focused on a currently little-known gene, which could play a role in the disease.

### **Development of a complete and accurate model of Parkinson's**

Professor Tilo Kunth of the Centre for Regenerative Medicine at the University of Edinburgh is leading a project aiming to make it much easier to test new Parkinson's medication and understand the importance of infection in Parkinson's development. His team will use live imaging technology to examine a key protein believed to play a central role in damaging brain cells in Parkinson's. They will see how the protein, alpha-synuclein, behaves when it's exposed to viruses and toxins. The team will also investigate whether certain drugs can improve the waste disposal system in brain cells, stopping proteins, like alpha-synuclein, from building up.

"There are four factors that might trigger damage or make it worse for people with Parkinson's – viral infection, exposure to environmental toxins, poor cellular waste disposal and an individual's genes. Looking at them in combination will enable us to build a complete and accurate model of Parkinson's in a dish," said Prof. Kunath. "That's important because we can use this model to predict which new medicines are most likely to work in people, speeding up the process of making new treatments available for Parkinson's. In addition to being a great model for testing drugs, this work will help to answer outstanding questions about how viruses impact on alpha-synuclein, which could change how we think about treating people with Parkinson's".

*continued on back page*

# YOU NEVER LOSE

Hashem has so much good that He wants to give us. He has told us over and over in the Torah that blessing comes from observing Torah and mitzvos. However, it will not be obvious from the regular way of the world. Many times, it will appear that by choosing to do the right thing, a person will lose; and by choosing to do the wrong thing, he will gain. Nevertheless, it's all part of a plan; it's a test.

One person could violate the Torah and make money as a result. Another person could do a mitzvah and lose money. This is because Hashem doesn't make open miracles. Yet, in the larger picture, good always wins and evil always loses. As it says (Koheles 8:5): שומר מצוה לא ידע דבר רע – A person never loses as a result of doing a mitzvah; he will be reimbursed for any losses, and he will even gain. It says (Tehillim 37:1): אל תקנא בעושי עולה – Do not be jealous of those who do evil, because their gains will not remain with them. The *baal emunah* is never afraid to do the right thing. He knows the real Boss is watching, and He will take care of him.

Sometimes, Hashem has blessing waiting for us, hoping that we will make the right decision so that He can give it to us.

Yosef\* told me that his employer notified him that his salary was going to be cut by 30 percent. He immediately started to look for another job. He made some phone calls, and within a short time a wealthy non-Jewish businessman called him to say that he might be interested in hiring him. The businessman wanted to meet at a certain non-kosher restaurant to discuss the oppor-



tunity. Yosef asked if they could perhaps meet for coffee, instead. The business owner said that he preferred to go out to dinner. Although this was a great opportunity, Yosef courageously said, "I can only go if it's a kosher restaurant." The owner said he'd get back to him.

Yosef later told me that although he really needed this job, he was not going to compromise his standards.

A couple of days later, the owner called him back, suggested a kosher restaurant and said he was bringing a friend along. During dinner, the owner explained that he had asked his wealthy Jewish business friend to recommend a kosher restaurant and he ended up joining them.



After the meeting, the Jewish businessman called Yosef and said he was so impressed with his credentials that he wanted to hire him for his own business. They called the non-Jew and asked if it was okay and he said, “No problem.” This business was very close to Yosef’s house and the salary was more than he anticipated. Yosef said that his decision to go to a kosher establishment immediately paid off.

It’s not always this obvious. Sometimes we might never see a connection between a blessing and our decision to do good. However, Hashem is watching every effort, and He is trustworthy to pay — whether we realize it or not.

A representative of Princess Nasrin of Saudi Arabia accompanied by bodyguards came into David’s\* jewelry store a few years ago. David had sold jewels to the princess in the past and she was in the market for more. He showed her different jewels, and her assistant said that several pieces seemed quite suitable — these jewels were worth an estimated three million dollars. She needed to report to the princess and would then get back to him.

They had discussions back and forth during the week, and finally the agent notified David that the princess would meet with him Friday evening in a certain hotel lobby. As the appointment was very close to the beginning of Shabbos, David suggested other times, but Friday evening was the only time Her Highness had available.



The man told the representative, “I’m going to leave the ring with the hotel manager. If the princess likes it, she can call me, and we’ll finalize.”

The princess was late to the meeting with the hotel manager. David noticed his cell phone lighting up with the number of the princess’s representative after Shabbos began. She called back several times, and eventually the princess herself called. But, as David later told me, “I would not violate Shabbos for any amount of money.”

He called them after Shabbos, but they didn’t answer. The hotel manager told him that they had been interested, but when he didn’t pick up the phone they decided to forget about the deal.

David did not see three million dollars fall from the sky the next day. But he said, “I know *b’emunah sheleimah*, with complete faith, שומר מצוה לא ידע דבר רע. I didn’t lose a penny by keeping Shabbos; I only gained.”

Hashem did not make it obvious... but this is where *emunah* comes into play. A person only gains by following the Torah. Sometimes he sees the blessing the next day and sometimes years down the line. We must know Hashem is *ne’eman* — trustworthy to pay everybody what they deserve.

## WORD PLAY

All of the answers in this word definition game end with the word END.

1. To repair something.

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2. To mix ingredients smoothly and inseparably.

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3. This is what you do for a living if you make gimlets.

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4. To take a lawbreaker into custody.

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5. To create a false appearance, or act like nothing is wrong.

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6. A comrade or chum.

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7. To understand the nature or meaning of something.

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8. A title of respect for a member of the clergy.

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9. A monetary distribution to a stockholder.

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10. To climb or go upward.

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11. To irritate, insult, or behave in a disagreeable way.

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12. To suggest someone for a job.

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13. To behave as if stooping to the level of one considered inferior.

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14. To hang by attachment to something above, like a chandelier.

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# FRUITS FOR PARKINSON'S DISEASE

Katrina Badiola-Lim, M.D.

Nutrition is an overlooked, but important, factor in the management of Parkinson's disease. While there is no specific Parkinson's Disease diet, we do know that eating a diet that is rich in fresh fruits and vegetables has been shown to be beneficial for good gut and brain health. Here are a few suggestions on what fruits to eat this season:

## ANTIOXIDANTS

A few studies have shown that oxidative stress plays a role in the development of Parkinson's Disease. Oxidative stress refers to the molecular damage that occurs when there is an imbalance between free radical production (BAD) and antioxidant defenses (GOOD). Antioxidants present in our body and food can decrease oxidative stress in the brain, making them neuroprotective. Berries, e.g. cranberries, blueberries, blackberries, raspberries, are high in antioxidants. Prior studies have shown improved cognitive health in people who eat more berries than those who do not.

## BEST FRUIT WITH ANTIOXIDANTS: BERRIES

### Fiber

Fruits have a high fiber content, which can often help with digestion and ease constipation. Constipation can cause discomfort, pain, and – if it persists for a long time – confusion. Eating fruits high in fiber can help with blood sugar levels, lower cholesterol, and help you feel fuller for longer.

## BEST FRUIT TO HELP FIGHT AGAINST CONSTIPATION: PASSION FRUIT

### Monounsaturated fats

Healthful monounsaturated fats and its derivatives have anti-inflammatory and antioxidant effects. It has been shown that increased monounsaturated fats intake was associated with a slower decline in cognitive function. Avocados has become an increasingly popu-

lar fruit worldwide and is often cited in the literature as being heart and brain healthy. A 2021 study showed that avocado consumption was associated with better cognition scores.

## BEST FATTY FRUIT: AVOCADO

### Vitamin C

Many fruits are a good source of vitamin C, an essential vitamin for brain development. Certain fruits contain specific types of antioxidants with neuroprotective effect, such as anthocyanins in cherries or lycopenes in tomatoes. It's also important to consider fruits with high water content as these can also help with hydration, which is paramount in PD due to potential low blood pres-

sure issues and constipation.

Between high water concentration and fiber content, watermelon can help to keep the gut and our bodies moving.

## BEST FRUIT OVERALL: WATERMELON





**FRUITS ARE AN IMPORTANT COMPONENT IN ALL DIETS BECAUSE THEY CONTAIN MANY VITAMINS AND MINERALS THAT HELP WITH OVERALL GUT AND BRAIN HEALTH.**

**FRUITS THAT ARE RICH IN ANTIOXIDANTS, FIBER, AND VITAMIN C CAN HELP COMBAT THE NEGATIVE SYMPTOMS OF PARKINSON'S DISEASE.**

**IT'S IMPORTANT TO REMEMBER NOT TO FOCUS ON SINGLE NUTRIENTS AS FOODS HAVE SYNERGISTIC EFFECTS AT A WHOLE DIET LEVEL.**

**IF YOU ARE GOING TO MAKE CHANGES IN YOUR DIET, MAKE SURE TO DO IT SLOWLY AND UNDER YOUR DOCTOR'S SUPERVISION.**

**AS WE CELEBRATE TU BISHVAT, WE TRULY HOPE YOU TRY TO INCORPORATE AS MANY OF THE ABOVE FRUITS AS YOU CAN. HAPPY EATING!**



Dear LifeSpark Team,

Thank you so much for thoughtful Chanuka gift! It was a 'hit' with the whole family and we're all having a 'ball' playing together! It even got into our Chanukah game where 2 sons-in-law had a match off!! Don't worry, we're making sure my husband also gets to play! Keep up your great work helping and thinking of others!!

The C Family

Dear LifeSpark,

Thank you so much for your package with the ping pong set! It was very kind of you to send this, happy holidays!

Gian Pal, MD, MS

Associate Professor  
Division of Movement Disorders  
Department of Neurology  
Rutgers - Robert Wood Johnson Medical School  
125 Paterson Street

Brain-Gut Connection

Thank you to all at LifeSpark for arranging this webinar. It was super informative, and filled a real need for the PD community.

The doctor was very well spoken and presented his information in an easy-to-understand format. Thank you for your presentation!

My wife and I watched the excellent program presented. Will it be available to be downloaded and watch again?

Thank you.

B&J

Thank you for the Chanukah gift!! We are so excited to use it :)

Wishing you and your families a Freilechen Chanukah!!

Sarah Klein MS CCC-SLP

Dear Editor,

The webinar presented by Dr. El-Nachef was outstanding. I did have a follow up question for the doctor. How do I go about asking it?

LP

Dear LP,

Thank you for the positive feedback, hearing from our members helps us gauge what our audience is looking to understand. Questions can always be asked on any topic via our website on the 'Ask the doctor' tab. You can choose a doctor in the field that pertains to your question.

-TF

Dear Editor,

Thank you so much for the monthly classes. There are some topics that I am interested in learning about – is there a way that I can make some suggestions? Love Learning from LA.

Dear Love Learning from LA,

We are always happy to take suggestions from our members! Feel free to email us at [info@lifesparkpd.com](mailto:info@lifesparkpd.com).

-TF

Thank you for the table tennis set!  
All the best,  
FG

Gut Voch, Guttien Chanuka, the crowd is enjoying the ping-pong set, thank you!

LIFESPARK  
igniting victories for parkinsons

# From CHALLENGE to GREATNESS

WITH LINDA K. OLSON, M.D. FACR

YOU ARE INVITED TO HEAR A MOST RIVETING STORY, A JOURNEY OF COURAGE AND RESILIENCE. A NARRATIVE OF TRAVEL FROM TRAUMATIC INJURY TO A LIVING A MEANINGFUL LIFE. IT IS HEARTRENDING AND HEROIC, AND TELLS OF THE POWER OF POSITIVE ATTITUDE, THE STRENGTH OF THE HUMAN MIND AND THE PRECIOUS GIFT OF LIFE ITSELF.

11:00 AM  
JANUARY 14<sup>TH</sup>, 24



Zoom Event

[HTTPS://US02WEB.ZOOM.US/J/88321511896](https://us02web.zoom.us/j/88321511896)

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MEETING ID 883 2151 1896

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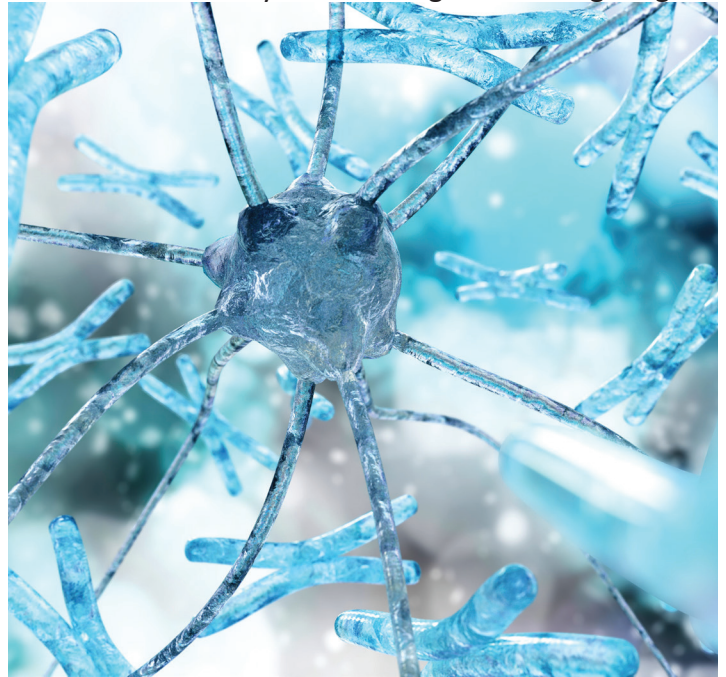
[www.lifesparkpd.com](http://www.lifesparkpd.com)

## Little-known gene may play a key role in the development of Parkinson's

Dr. Kathryn Bowles of the Dementia Research Institute at the University of Edinburgh is investigating the workings of a little-known gene, which may play a role in the development of Parkinson's. This work could deliver new targets for Parkinson's treatments.

Previous research has found that people with higher levels of the LRR37A2 gene are less likely to develop Parkinson's. The gene is thought to help protect the brain, and having less of it could be a risk factor for Parkinson's. Dr. Bowles and her team will investigate what LRR37A2 does and how having more of this gene in the brain could prevent people from developing Parkinson's.

"If we can confirm this gene is protective and understand why, that will open up new avenues for therapy. We can then say, these are the mechanisms we need to target, this is how we can change the expression of this gene, and that is a pathway to therapy. It's quite far away, but it's a new avenue to go down," explained Dr. Bowles.



**LIFESPARK**  
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