

TABLE OF CONTENTS

From the Doctor
Dressing Made Easy

Living Well with PD Retreat
Step Big Walk for PD

RSB Offering Online
Classes through Zoom

Virtual Voice Therapy
Director's Message

Thank You Donors
SDPF Board Members

Calendar of Events
SDPF Chapter Gifts

LSVT BIG & LOUD
SDPF Announcements

Petals for Parkinson's
PD Support Groups

PD Research Project at
University of South Dakota

Right At Home: Keeping
Elder Loved Ones Warm

A Reflection On 2020!

The year 2020 proved to be one of its own for sure! So many ways to describe this past year with ups and downs and finding new ways to come together as a community and as family to support and encourage one another giving hope, something so desperately desired by an entire nation. The South Dakota Parkinson Foundation (SDPF) wasn't alone in its challenges, in fact this was something that brought so many of us together. We all had to join forces and brainstorm new ways to stay connected and in providing services to families touched by Parkinson's disease. Together, we did not lose sight of our mission, but instead kept it at the forefront, reminding us of the work we do and that with some creativity we can find new ways to keep families informed, provide support and resources, and remain connected.

With the unfortunate outcome of COVID-19 the SD Parkinson Foundation did follow in suit with other organizations in cancelling all 2020 in-person events, which for our foundation meant canceling the SD Parkinson's Awareness Conference (*April*), the Step Big Walk for Parkinson's (*August*), the Caregiver Celebration Night (*November*), and so many Parkinson's support groups across the state. However, with some accommodations we were able to replace these events with some alternative options that included an online educational series, a virtual walk event, an online caregiver series, and an online monthly support group, all which were extremely successful and provided incredible opportunities for so many individuals and families across the entire state of South Dakota and neighboring states.

As we jump into the New Year, we all hold on to hope, hope for a healthier and safer year! And as the new COVID-19 vaccine continues to make its way across the nation and into our state of South Dakota it provides us with a light at the end of a very long tunnel...hope that we can all be together again soon and finally be able to protect our loved ones. But until that time, please remember you are not alone and we will remain strong together. A very fitting quote by Charles Dickens that could be used to summarize 2020 and encourage us to look forward to the days ahead, "Reflect upon your present blessings, of which every man has plenty, not on your past misfortunes, of which all men have some."



From the Doctor: Sleep is the Best Meditation

Valentina Joseph, MD
Sanford Clinic Neurology,
Department of Neurosciences,
USD Sanford School of Medicine



Who does not like a good night's sleep? A restful night's sleep not only makes us feel good and function better the next day, but it also plays a vital role in many bodily functions. It is interesting to know that sleep helps with restoring the brain energy,

improves cognitive performance, boosts immune function, important for thermoregulation, release of certain types of hormones, regulation of blood pressure & heart rate and glucose control. Conversely, sleep deprivation can negatively affect these functions resulting in increased risk of uncontrolled hypertension, poor glycemic control, irregular heart rate and poor cognitive performance.

In patients with Parkinson's disease, up to two thirds of them have sleep related problems. Some common problems include

- a) **Restless Leg syndrome** (*irresistible urge to move the legs with some relief with activity and worsening of symptoms in the evening/nighttime*)
- b) **REM Behavioral disorder** (*dream enactment resulting in potentially harmful/ violent behaviors*)
- c) **Obstructive sleep Apnea** (*snoring, gasping, or stopping breathing in sleep*)
- d) **Insomnia** (*difficulty falling or staying asleep*)
- e) **Irregular sleep wake pattern**
- f) **Excessive daytime sleepiness**

Despite increasing knowledge in the field of sleep medicine, sleep disorders continue to be underdiagnosed. If any of these symptoms is affecting your sleep and not making you feel rested, then it is important to discuss this with your doctors. In most patients, a detailed evaluation and a consultation with Sleep physician would be needed.

Some of these disorders like Obstructive Sleep Apnea, REM Behavioral Disorder and excessive daytime sleepiness require a diagnostic sleep study whereas others can be treated in an office-based evaluation. Fortunately, with treatment, patients show significant improvement in sleep.

Remember...
"A good laugh and
a healthy sleep are
the two best cures
for almost every ailment!"

SANFORD
Neuroscience

Dressing Made Easy

Jo Landis, RN, MSCN
Sanford Health Neurology

Getting dressed is something you do every day. With Parkinson's disease (PD) dressing can be challenging due to symptoms of tremor, poor dexterity, stiffness, and slowness. Let us look at a few solutions to dressing problems.

- **Plan ahead.**
Take your medications prior to your dressing time so your medication is working for you, not against you.
- **Pick out your clothes in advance.**
Have your clothes laid out on the bed within reach. Arrange your clothes in the order you will be putting them on.
- **Choose your clothing wisely.**
Select clothing with zippers, snaps and velcro. Avoid clothing that is tight fitting or that has buttons. Clothing that is pulled on over your head or pants that are easily pulled up may be will be much easier to handle.
- **Sit on your bed to avoid falls.**
Standing to dress can be tricky if you have trouble with stiffness or balance.
- **Focus of each step of dressing.**
Make sure to allow plenty of time.

By keeping these tips in mind you can make your daily routine of dressing much easier and successful. With Parkinson's disease, the adage "Dress for Success" can take on a whole new meaning!

Check out these sites that provide clothing and shoe options that can assist in your daily dressing routine.

- <https://www.silverts.com>
- <https://www.buckandbuck.com>
- <https://www.aliumadaptive.com>
- <https://www.duluthtrading.com>
- <https://kizik.com>

5th Annual Retreat Living Well With Parkinson's Disease



Friday, Sept. 10 – Sunday, Sept. 12
Abbey of the Hills

46561 147th St., Marvin, SD

Save Your Spot!

Registration available through Avera Therapy
Please call 605-322-5150 for more information.

Step Big Walk for Parkinson's: Walking Ahead Into 2021

Becca Anderson, SDPF Event Assistant

This year has been full of change, challenges, and uncertainty, but the love and support within our SDPF community persevered through it all. We reflect on 2020 with compassion and resilience while looking toward 2021 with hope for positive change and good health.

We are excitedly planning the 2021 Step Big Walk for Parkinson's and it will be better than ever! With a team captain kickoff event, a bigger Step Big Challenge, and an updated registration page, the event is sure to be our best yet. We eagerly anticipate the ability to host an in-person walk event but will also be maintaining the virtual option. This will allow our friends and family from all over the country to continue participating with us from afar. The event date will be announced very soon...stay tuned.

Planning a walk takes the talent and time of a team of individuals, working together to create an impactful and fun event. We need you! If you're interested in joining our walk planning committee, please email Becca at banderson@sdparkinson.org. Committee meetings are held once a month for about one hour, starting mid-January 2021 up until the walk in August and shortly after to discuss the event's success.



Because Fighting Back Never Ends: Rock Steady Boxing Offering Zoom Classes!

Rock Steady Boxing at the Inn on Westport is South Dakota's first RSB gym and the only one in Sioux Falls, SD. We are now offering virtual classes designed and created specifically for boxing participants and those with Parkinson's. Just because there is a pandemic and our gym is closed for now we have NOT stopped fighting. We are pleased to be holding classes virtual and YOU can join us anytime! We hope with the new Covid-19 vaccine that our gym doors will be opening soon for our boxers to return and get back to our amazing equipment and the variety of each week's classes.

Rock Steady Boxing at The Inn on Westport, an affiliate of Rock Steady Boxing, Inc., enables individuals with Parkinson's to fight their disease by providing non-contact boxing style fitness classes that are designed to improve their quality of life, sense of efficacy and self-worth. Recent studies also suggest that intense exercise programs maybe "neuro-protective," work to delay the progression of symptoms. Rock Steady boxing provides encouragement by inspiring maximum effort, speed, strength, balance and flexibility. Boxing works by moving your body in all planes of motion while continuously changing the routine as your progress. Rock Steady Boxing classes may benefit anyone, at any level of Parkinson's and may actually lessen symptoms and lead to a healthier, happier life.

Our new virtual classes meet at the following times:

Monday /Wednesday	7:30 am – 8:30 am	(Level 1-2)
Tuesday/Thursday	2:00 pm –3:00 pm	(Chair Class)
Tuesday/Thursday	5:15 pm – 6:15 pm	(Level 1-2)



A physician's order and physical assessment is required to get started. This is what some of our current ZOOMERS are saying about our RSB classes:

"Zoom boxing classes have been most beneficial in this time of social distancing and isolation. Coach Lisa and fellow boxers are encouraging and motivating and make it fun for me to continue exercising! I have found exercise to be one of the best medicines for my mental and physical health since being diagnosed with Parkinson's." ~ "Triple T" Terri Schmidt (boxing since March 2019)

"In my 5+ years with PD I have discovered (and rediscovered) that physical activity is the best medicine for dealing with its symptoms. The more dedicated I am to rigorous physical activity the milder my symptoms. I joined RSB in July of 2018 and it was my number one vehicle for getting on and staying on a regular workout routine. Then COVID hit and the RSB gym had to close. After about a month, despite my best efforts, I sort of 'fell off the exercise wagon'. My PD symptoms worsened, I gained weight, I didn't sleep as well, my energy level was down and my overall attitude took a big hit (just ask my wife!). Once the realization that COVID restrictions weren't going away anytime soon Coach Lisa started offering virtual RSB workouts. They are great! We use ZOOM so we can hear and see Coach and the other session participants. She puts us through a workout similar to what we'd do if we were in the gym. The results have been great and I'm back on a regular routine. My PD symptoms are less pronounced, my energy level is back and my attitude is much better. Other class members have noticed similar results. Thanks to Coach Lisa for her creativity and dedication to helping us by keeping the RSB 'show on the road!'" ~ "Sugar" Ray Townsend (boxing since July 2017)

"I wasn't sure what to expect with Rock Steady Boxing except that I heard that it was very good for controlling Parkinson's. I've been very pleased with it it's a full body workout plus it's also a great cognitive workout." ~ "Rookie" Mark Edeen (zooming since October 2020)

If you'd like to learn more about how YOU can get started "fighting back" against Parkinson's please call Rock Steady Boxing at The Inn on Westport at 605.362.1210 or email Coach Lisa at lisa.howard@innonwestport.org. You will be glad you did!

Avera Therapy Now Offers Virtual Voice Therapy

Since Parkinson's disease is progressive and degenerative in nature, home practice and continuous follow-up is crucial to maintaining your ability to communicate. Avera Therapy provides SPEAK OUT!® and The LOUD Crowd® voice programs aimed at improving voice and communication deficits associated with Parkinson's disease. Although the COVID-19 pandemic has limited the ability to safely hold in-person group sessions, we are excited to be offering Teletherapy using the Zoom format to meet your speech therapy needs. Using your home computer, tablet, or iPad you can connect with our speech pathologists for an assessment, treatment or group class.

Don't let social distancing and reduced access to care result in a decline in your speech, voice or swallowing ability. At Avera Therapy, we offer a weekly virtual voice class every Wednesday from 11:15 – 12:00 pm. During the class voice exercises are performed, and group members provide support, encouragement, and accountability to one another. To qualify you must first complete an evaluation with one of our certified speech-pathologists.



For more information about SPEAK OUT!® and The LOUD Crowd® or to schedule a speech evaluation, please contact Avera Therapy at 605.322.5150 to speak with a Speech Pathologist. You can ask to speak with Tina Jacobsen, M.A.CCC-SLP or Ann Spader, M.A.CCC-SLP both, who can answer your questions about this new virtual therapy opportunity.



Director's Message

Janey Case, Executive Director



Happy New Year from my family to yours! I hope you and your family had a very blessed holiday, even if it may have looked a little different this

year. It's hard to believe it's 2021...we made it which means 2020 is now behind us and although we can't predict the future, we can hold on to hope that brighter days are ahead. As we continue to take everything in stride, I'm looking forward to what we have planned for the coming months remaining hopeful that we will finally be able to bring back many of our in-person events. And even if this doesn't happen know that we will continue to pursue new and creative ways to provide support and services for our families remaining focused on the South Dakota Parkinson Foundation mission to improve the quality of life for those touched by Parkinson's disease. Please take some time to look through this issue of the newsletter to read all about the wonderful things happening in the coming year.

There are several ways to stay updated within the South Dakota Parkinson Foundation (SDPF) and I would encourage you to connect with us through the following online options:

- Website – www.southdakotaparkinson.org
- Facebook: listed under following names:
 1. South Dakota Parkinson Foundation
 2. Step Big Walk for Parkinson's
 3. SD Parkinson's Support Group
(private page with member request)

These are all great ways to stay connected online and if that is not your preference, we also have our quarterly newsletter that is distributed every January, April, July and October and it's completely free to be included on the mailing list.

Some events in 2021 we are busy planning include Petals for PD, the SD Parkinson's Awareness Conference, the Parkinson's annual picnic, the Step Big Walk and our Caregiver Celebration Night. Stay tuned as we have lots to look forward to.

Thank you for your continued support and dedication. I feel blessed to work for a foundation that demonstrates such passion and continues to educate, inspire, and encourage families touched by Parkinson's disease. We have so much to look forward to in 2021 and no matter the circumstances we are all in this TOGETHER!

EXECUTIVE BOARD

EDITOR

Janey Case

OFFICERS

Lisa Howard, *President*
Stephanie Meyers, *Vice President*
Noel Lais, *Treasurer*
Molly Keegan, *Secretary*

BOARD MEMBERS

Glenda Meyer
Jaclyn Schaap
Linda Lee Braun
Lorri Halverson
Meldon Kroeger
Paul DeJong
Teagan Molden

SDPF STAFF

Janey Case, *Executive Director*
Becca Anderson, *Event Assistant*

LOCAL OFFICE

South Dakota Parkinson Foundation (SDPF)

1000 N West Ave, Ste. 220
Sioux Falls, SD 57104
605.271.6113
www.southdakotaparkinson.org

BOARD OF DIRECTORS:

The SDPF staff and board of directors would like to extend a heartfelt thank you to Tony Mau and Linda Kroeger for their time dedicated as a volunteer board member. It has been a true pleasure having both Tony & Linda serve on the board and we know they will continue to play an important role in helping families touched by Parkinson's disease. During his time on the board Tony served as President and Secretary and Linda played an important role in connecting with area support groups and giving a caregiver's perspective. We wish them both the very best!

Thank You to All Our Donors

October 1st – December 31st, 2020

Gifts to the South Dakota Parkinson Foundation support educational programs and services across the state. Thank you to all who support the SDPF mission by giving generously throughout the year.

At the time of the gift, the donor receives notification and SDPF sends a special acknowledgement letter to the family upon request. SDPF has made every effort to ensure accuracy of this information. If you notice an error or omission, please notify the office and corrections will be made.

IN MEMORY OF

Arvid Melquist

Wendell & Marly Thompson

Dale Kirschenman

Carol Hamvas
Barb Olson
Scott & Teresa Haberman
Keith & Peggy Hanneman
Diane Anderson
John & Carmen Schramm
Daniel & Arlene Drew

Duane Ellis

Wendell & Marly Thompson

Joanne "Joni" Carlson

Rod Carlson
David & Patricia Carlson
Rollie & Donna Carlson
Beverly Carlson
Wayne Carlson
Peggy Carlson & Chuck Nielsen
Evan & Carol Jones
Julie Nelson

Daniel & Sara Carpenter

Catherine Bell

Thomas Van Wyhe

Craig & Pat Lloyd

Robert Fanning

Referral Partners Breakfast Group

Karyl Weishaupl

Marilyn Karsten

Mike Kezar

Phil & Lisa Howard

Norma Kale

William Kale
Raymond Ketterling
Robert & Pam Schnieder
Scott & Diane Johnston
Randall & Karla Waloch
Robert Webb
Bill, Missy & Sara Peterson
Wes & Karen Anderson

IN MEMORY OF

Pat Mahowald

Watertown PD Support Group

Roger Telkamp

Wendell & Marly Thompson
Luverne & Barbara Crosser
James & Connie McKnight

Rollin Wagner

Bruce & Karen Wagner
John & Kathryn Diffley

Russell DeSchepper

Darla Slack

Steve Rayburn

Janice Rayburn
Phil & Lisa Howard
Linda Braun
Donald & Betty Vermundson

Wayne Torper

Marilyn Torper

IN HONOR OF

Jim

Jennifer Hopf

Ken & Kathy Ivers

Patricia Jensen



Calendar of Events

January

Petals for Parkinson's Launch!

Dates: January 15th – March 26th (*all orders will be available before Easter 2021*)

Orders: www.southdakotaparkinson.org

Tulips: \$20 per tulip arrangement



February

Davis Phinney Foundation for Parkinson's Webinar: Telemedicine & PD

Date: February 16th

Time: 1:00 pm

Presented By: Ray Dorsey, MD & Roseanne Dobkin, PhD

Fee: Free & Open to the Public

Register: <http://www.davisphinneyfoundation.org>

March

Petals for Parkinson's Final Sales!

Dates: Last day to order a tulip arrangement will be March 26th

Tulip Distribution: During the week of March 29th – April 2nd

April

National Parkinson's Awareness Month!

NOTE: *The SD Parkinson's Awareness Conference has been postponed to October 23rd*

SDPF will be working on a new online series throughout the month of April covering different topics pertaining to Parkinson's disease and caregiving. Stay tuned in the coming months for additional details.

Thank You to All Our Donors

October 1st – December 31st, 2020

SDPF CHAPTER GIFTS

Charles & Rosie Alverson

Marietta Brandt

Patricia Brown

Ellis Combs

Sharon DeHaan

Arnold DeWald

Jerry & Mary Fiedler

Rosalie Gannon

Dr. Leslie & Iris Hemmingson

Bob & Joy Jacobson

Vicky Jorgensen

John & Marcia Kittelson

Jack Lovett

Stephen Nord

Judy Olson

Susan Ripple

John & Joan Snow

Thomas Sparrow

Fred Stephens

Gillas Stern

Carolyn Thomson

Robert Webb

Roberta Whitlock

Bonnie Younkin

Hy-Vee Operations Helpful Smile

South Dakota Right At Home, Inc.

SD Community Foundation

Watertown PD Support Group



LSVT BIG & LOUD

Want to learn more about LSVT BIG & LOUD? There are several facilities across the state of South Dakota that has certified clinicians. We encourage you to reach out to a facility in your local area.

[ABERDEEN, SD:](#)

Avera St. Luke's Hospital

305 S State Street
605.622.5772

[CANTON, SD:](#)

Sanford Canton/Inwood

400 N Hiawatha Drive
605.764.1480

[HURON, SD:](#)

Huron Regional Medical Center

172 4th Street SE
605.352.6253

[MITCHELL, SD:](#)

Integrated Therapy Services

501 W Havens
605.753.5400

[RAPID CITY, SD:](#)

RC Regional Rehabilitation Institute

2908 5th Street
605.755.1408

[VIBORG, SD:](#)

Pioneer Outpatient Center

315 N Washington Street
605.760.5066

[YANKTON, SD:](#)

Avera Sacred Heart Hospital

501 Summit
605.668.8268

[BERESFORD, SD:](#)

Bethesda Nursing Home

606 W Cedar Street
605.760.5066

[CUSTER, SD:](#)

Custer Regional Hospital

Montgomery Street
605.673.2229

[LIVERNE, MN:](#)

Prairie Rehabilitation

106. N Cedar Street
507.449.2003

[PARKER, SD:](#)

Parker Medical Clinic

100 E Sanborn Street
605.760.5066

[SIOUX FALLS, SD:](#)

Avera Outpatient Therapy

1325 S Cliff Avenue
605.322.5150

[WATERTOWN, SD:](#)

Big Stone Therapies, Inc.

Eight 5th Street SE
605.995.6044

[BROOKINGS, SD:](#)

Brookings Health Systems

300 22nd Avenue
605.696.8821

[FORT MEADE, SD:](#)

Black Hills VA Healthcare System

113 Comanche Road
605.347.7000

[MILLER, SD:](#)

Avera Hand County Hospital

300 W 5th Street
605.853.0350

[PIERRE, SD:](#)

Avera St. Mary's Hospital

801 E Sioux Avenue
605.224.3162

[SIOUX FALLS, SD:](#)

Sanford Outpatient Center

1210 W 18th Street, LL01
605.328.1860

[WATERTOWN, SD:](#)

Jenkins Living Center

215 S Maple Street
605.886.5777

****If you would like to be added to this list please contact the SDPF office.***
605.323.9779 or jcase@sdparkinson.org*

SD Parkinson's Awareness Conference

Due to the recommendations for health and safety concerns, the SD Parkinson Foundation has made the decision to postpone the 2021 SD Parkinson's Awareness Conference which is normally held during the month of April during National Parkinson's Awareness Month. Our hope is that by postponing the event we will avoid any COVID-19 concerns and that we will once again be able to meet in person.

Please mark your calendars for Saturday, October 23rd for the 2021 SD Parkinson's Awareness Conference. We will plan to hold the event at the Hilton Garden Inn, south location in Sioux Falls.

During the month of April, we are hoping to provide an online series that will cover a variety of PD topics.

SDPF Financial Assistance Program

In support of the mission, the South Dakota Parkinson Foundation hopes to provide financial assistance for specific items, services, and programs that will aid in helping individuals, families, and support groups across the state of South Dakota.

Grants are available monthly and an application must be completed and turned into the foundation by the 1st of every month. All applications will then be reviewed and applicants will be notified before the end of the month. Applicants can apply for up to \$250 for assistance. To be eligible to receive assistance applicants must reside in the state of South Dakota. The SDPF Financial Assistance Program will run from January 2021 through December 2021.

If you have additional questions about the financial assistance program please reach out to SDPF at 605.323.9779 or email at info@southdakotaparkinson.org

Petals for Parkinson's



The red tulip has been associated with Parkinson's awareness since 1980 when a Dutch horticulturalist who had PD developed a red and white tulip and named it "Dr. James Parkinson." The European Parkinson's Disease Association (EPDA) uses a stylized red tulip based on the "Dr. James Parkinson" tulip as its logo. In April 2005, the red tulip was launched as the Worldwide Symbol of Parkinson's disease at the 9th World PD Day Conference in Luxembourg.

This stylized red tulip, with its distinctive leaves shaped like the letters "P" and "D", was designed by early-onset Parkinson's patient Karen Painter. Karen and her friend, Jean Burns, are behind the movement for it to become the nationally recognized symbol for Parkinson's disease awareness. The PD Tulip has inspired a grassroots movement combining efforts and resources to help find a cure in our lifetimes (*2017 Wilkins Parkinson's Foundation*).

April has been designated as Parkinson's Awareness Month and during this time we join together to positively create a better understanding of Parkinson's disease and how we can better assist those living with the disease, their carepartners and family members. In conjunction with Parkinson's Awareness Month the SD Parkinson Foundation will be organizing for a second year, the Petals for Parkinson's fundraiser. We will be using the worldwide symbol (*the tulip*) as a way to show our support while creating awareness in our local and surrounding communities across South Dakota.

Tulip pre-sales will begin this January! We are hoping to sell 250 tulip arrangements in the SF area and surrounding communities. If you would like to order an arrangement you can visit the SDPF website at www.southdakotaparkinson.org or you can call the SDPF office at 605.323.9779.

Updates will continue to be posted on the SDPF Facebook page and through the SDPF website. A special thank you to Landscape Garden Centers for doing such an amazing job last year amid all the COVID-19 related concerns and with the limitations it provided with this event. We are excited to see all to come in 2021.

Community Area PD Support Groups

Aberdeen

2nd Thursday
1:30 pm
Parkside Retirement

Brookings

1st Thursday
1:30 pm
First Bank & Trust

Canton

2nd Wednesday
3:00 pm
Sanford Canton/Inwood

Huron

4th Wednesday
1:30 pm
HRMC Legacy Plaza

Luverne

3rd Thursday
1:00 pm
St. John Lutheran Church

Madison

3rd Wednesday
7:00 pm (*varies*)
*Call for location

Mitchell

3rd Monday
2:00 pm
Avera Queen of Peace

Rapid City

2nd Saturday
1:00 pm
WestHills Village

Sioux Falls

3rd Wednesday
1:00 pm
Edith Sanford Cancer Center

Sioux Falls

4th Wednesday
6:30 pm
Edith Sanford Cancer Center

Sioux Falls

Tues/Thurs
2:30 pm
Avera Therapy

Sioux Falls

2nd Thursday
2:00 pm
Active Generations

SF Women's Group

2nd Thursday
1:15 pm
First Presbyterian Church

Vermillion

1st Wednesday
11:30 am
Sanford Vermillion

Viborg

3rd Wednesday
2:00 pm
Pioneer Memorial Hospital

Watertown

2nd Wednesday
2:00 pm
Edgewood Healthcare

Yankton

1st Tuesday
5:00 pm
*On hold until Spring 2021

Please contact your area support group facilitator each month for current meeting information since many groups are on pause due to health and safety concerns related to COVID-19. If your group is meeting please check for health and safety precautions as they may vary from location to location.

Parkinson's Disease Research at USD

Dr. Arun Singh, PhD

Assistant Professor of Neuroscience

Division of Basic Biomedical Sciences

Sanford School of Medicine, USD



Dr. Arun Singh is an Assistant Professor in the division of Basic Biomedical Sciences at the University of South Dakota, Vermillion. He earned his doctorate degree from LMU, Munich, Germany. He moved from Iowa City where he was working in Neurology department at the University of Iowa as a staff scientist. The primary research goals of the Dr. Singh's laboratory are directed towards understanding the brain signals that may underlie motor and cognitive impairments in Parkinson's disease (PD).

While there are many effective therapies for upper-limb motor problems of PD, there are fewer therapies for lower-limb motor problems such as gait, balance, and posture, and it is difficult to find new treatments since the mechanisms are unknown. Studies have shown strong relationship between abnormal gait/balance and cognitive deficits in PD patients. Dr. Singh's lab is studying the relationship between motor and cognitive systems in PD patients and how cognitive impairments affect the gait, balance, and posture. His lab is equipped with EEG brain recording machine to record brain signals from the scalp. His lab is also trying to determine if non-invasive or non-surgical brain stimulation normalizes brain signals and improves gait, balance, and cognition.

Dr. Singh is also studying the relationship between gut and gait dysfunction in PD patients. Recently, evidence is showing that the dynamic changes in the gut microbiome can modulate brain activity and motor and cognitive behaviors in PD. This research will be significant in providing the suitability of the altered gut microbiota as an early biomarker for the onset of gait dysfunction in PD; and interventions that improved gut microbiota may provide effective treatments to improve gait dysfunction in PD.

Abnormal gait pattern worsens over time and intensely affects PD patients' daily activities; thus, Dr. Singh's research projects may assist in the referral of PD patients for rehabilitation as early as possible. In addition, his work might inspire new brain-stimulation therapies that could be critically important for PD and other movement disorders that affect gait and balance. His previous research articles have already shed some light on the basic questions related to the gait and balance problems in PD patients.

Currently, he is seeking volunteers (with PD) to participate. If you are interested or want to learn more please contact Dr. Singh through email at arun.singh@usd.edu or by calling 605.658.6320.



Kathi Eisenbeis from Madison, SD participating in research project

Keeping Elder Loved Ones Warm During the Winter

As Mother Nature's thermometer begins to dip in late fall and throughout winter, so does body temperature for many seniors. While older loved ones characteristically complain of being cold and crank up the thermostat, there is scientific data to support their feeling chilly.

Aging skin is thinner and less likely to tolerate fluctuating temperatures. When a person is cold, the heart pumps less blood to the skin, and tiny blood vessels in the skin constrict to conserve heat. Age reduces the elasticity of blood vessel walls and thins the fat layer under the skin that helps preserve body heat. An older individual's skin is limited in the precise control of changes in both cold and heat.

Penn State physiologist W. Larry Kenney, who has studied the effects of age on temperature regulation for 35 years, notes, "With aging, multiple redundant changes occur in the skin, and they're all conspiring against the ability to dilate and constrict skin blood vessels." Kenney's extensive work with body temperature also finds that the circulation of blood in the skin can cause changes in the body's coronary arteries and overall vascular health. Being too cold or too hot can stress the heart.

Dangers of Cold Weather for Seniors

Older adults lose body heat faster and are less able to tolerate cold than younger adults. If a person's body temperature drops much below the common base of 98.6 F, dangerous health problems can arise, including increased heart rate and blood pressure, liver damage, and heart attack. Hypothermia sets in when a person's body temp goes below 95 F. Left untreated, hypothermia can shut down the body's heart and respiratory systems and lead to death.

Older people are at greatest risk for cold-related death — the Centers for Disease Control and Prevention (CDC) consistently reports that more people die from excessive cold than excessive heat. The elderly do not need to be outside in frigid weather to run into problems. Living inside in intense air conditioning or with inadequate heat can invite hypothermia. Also, older adults with confused thinking may not be self-aware of their dropping body temperature, so caregivers need to be extra vigilant to check for signs of hypothermia including shivering, slurred speech, shallow breathing and a weak pulse.

Causes of Low Body Temperature

Besides exposure to cold temperatures and moisture, seniors can face a drop in body temperature because of a number of other medical conditions and health factors, including:

- Medications such as beta blockers, sedatives, antipsychotics and antidepressants
- Stroke
- Parkinson's disease
- Hypothyroidism (underactive thyroid)
- Sepsis (widespread infection)
- Malnutrition and anorexia
- Nerve damage
- Alcohol or drug use
- Anesthesia

How to Keep Seniors Warm

Prevention of cold exposure to seniors takes precautionary measures before winter sets in and ongoing observation by family members, caregivers and those familiar with the older loved one's health and living environment.

I recommend these tips for caregivers to help seniors stay warm this winter:

- Keep the home properly heated at a temperature of 68 F to 70 F.
- Winterize windows and doors with weather stripping and caulk.
- Close heat vents and shut doors in rooms that are seldom used.
- Dress the senior in warm layers that can be removed if he or she gets too hot.
- Put socks and slippers on the senior and use a blanket over legs.
- Make sure the senior wears a hat, scarf and gloves when going outside.
- Check weather reports and know that snow, rain and wind can increase heat loss.
- Have the senior change out of damp or wet clothes right away.
- Help the senior practice sound nutrition to fuel the body's heat and energy sources.
- Ensure the senior stays fully hydrated — dry air temperatures inside and outside can cause dehydration.
- Support the senior in eating regular meals to stimulate the body's own thermostat.
- Encourage the senior to avoid alcohol consumption, which can trigger heat loss.
- Learn the temperature-lowering effect of specific medications and over-the-counter drugs.
- Be aware that some space heaters and fireplaces are fire hazards and can cause carbon monoxide poisoning.
- Devise an evacuation plan in case of a power outage or the furnace/heat source breaks down.
- Create a plan for family and friends to check on the senior regularly, especially during colder weather.

South Dakota Parkinson Foundation
1000 N West Ave, Suite 220
Sioux Falls, SD 57104
www.southdakotaparkinson.org

The South Dakota Parkinson Foundation a non-profit, voluntary alliance, is dedicated to improving the lives of those affected by Parkinson's disease, through fundraising, community building, advocacy and increasing public awareness.

Thank You for Your Support!

As another holiday season ends, all of us at the South Dakota Parkinson Foundation (SDPF) would like to thank you for your ongoing and generous support. Receiving a Parkinson's diagnosis can be overwhelming, riddled with questions and uncertainty. The South Dakota Parkinson Foundation is here to be a light during those difficult days. Armed with information, SDPF connects individuals, their caregivers and family members to a robust network of support groups and service organizations. With the help of SDPF you are able to make more informed choices about your health and overall care.

As we look ahead, we continue to navigate new ways to remain connected. The mission of SDPF is to improve the quality of life for all those touched by Parkinson's. Families are not alone in their Parkinson's journey. During this global pandemic, we've all had to cope with feelings of isolation and in response to this past year, SDPF found new and creative ways to reach out, providing necessary support services.

The work of the South Dakota Parkinson Foundation is made possible through your generosity and we need your support now more than ever. Contributions received go directly into programs and services across South Dakota— services like health and wellness information, support groups, educational conferences, medical resources, home-health care, online programs and personal need-based grants to those living with Parkinson's. You can donate by mail or online at www.southdakotaparkinson.org. The board of directors, staff and volunteers all join together in thanking you for being such an integral part of the SDPF mission.

