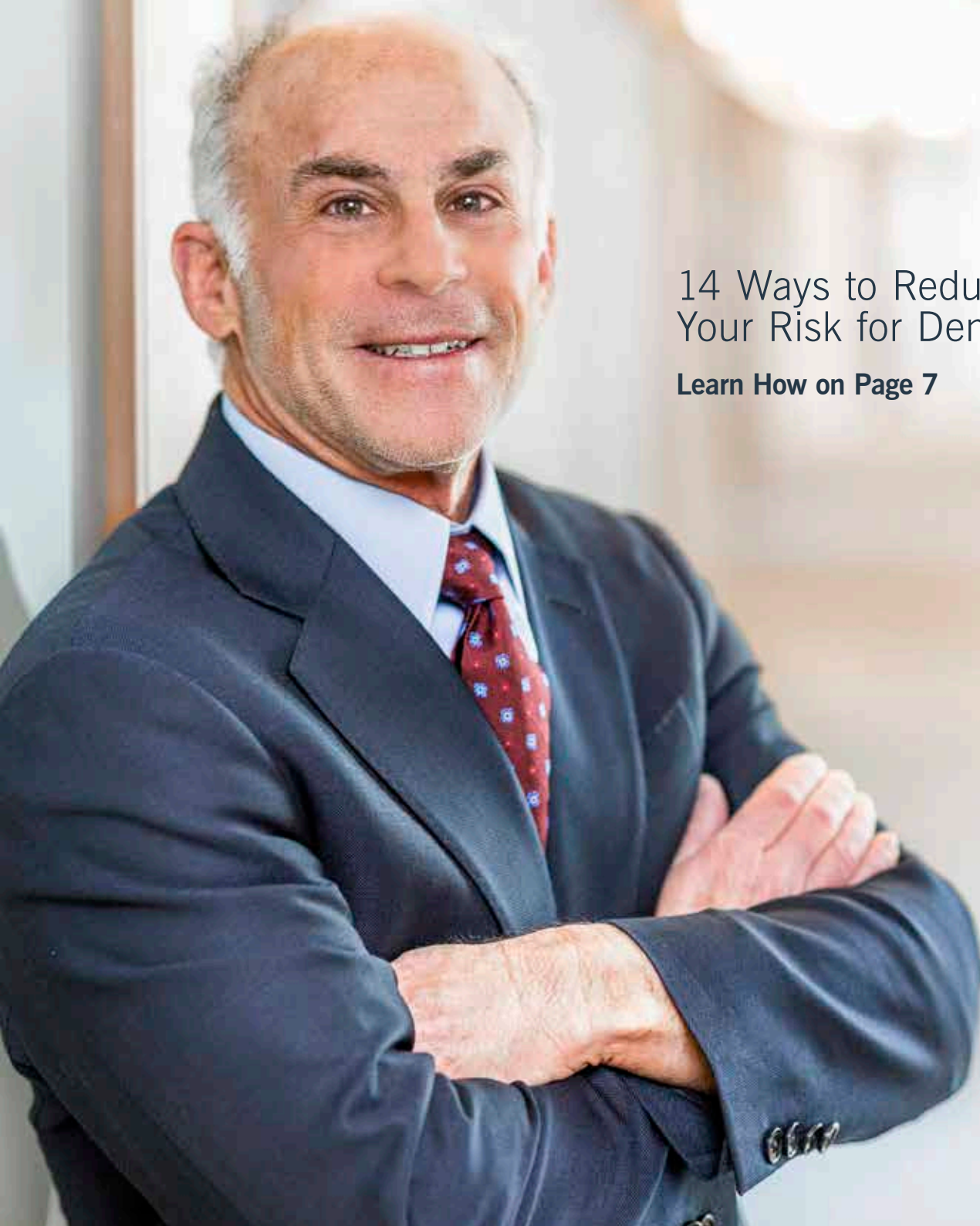


# NEW THINKING ABOUT THINKING

| FALL 2025 |



14 Ways to Reduce  
Your Risk for Dementia

**Learn How on Page 7**

# From Head to Toe:

## AT CLEVELAND CLINIC NEVADA, THE PATH TO PERSONALIZED PRIMARY CARE STARTED WITH THE BRAIN



**July 2009: Opened Cleveland Clinic Lou Ruvo Center for Brain Health**  
dedicated to treatment and education for families living with Alzheimer's disease (AD)

**2010**

- Established a clinical research program

**2012**

- Established a Huntington's Disease (HD) Comprehensive Clinic

**2013**

- Named a National Multiple Sclerosis Society (NMSS) Partner in MS Care, the only in Southern Nevada



**2015**

- Secured an \$11.1 million grant from the NIH to establish a Center of Biomedical Research Excellence (COBRE) with UNLV

**2016**

- Published the first annual Alzheimer's Disease Drug Development Pipeline, highlighting a 99.7% drug development failure rate

**2017**

- Introduced wellness consultations for individuals with MS, expanding holistic approach to care

**2019**

- Endowed the Angie Ruvo Caregiving Chair to educate and empower families

**2020**

- Opened the Women's Alzheimer's Movement Prevention & Research Center at Cleveland Clinic, the first of its kind in the nation

- Designated Nevada's first Alzheimer's Disease Research Center

**2021**

- Cleveland Clinic marked 100 years

**2023**

- Lecanemab became the 2<sup>nd</sup> drug studied at our center to receive FDA approval for the treatment of AD

- Became the only site in Nevada to join the Michael J. Fox Foundation's Parkinson's Progression Markers Initiative

- Helped pass the David Humm Bill, declaring the 3<sup>rd</sup> week of March Nevada MS Week

**2011**

- Incorporated physical and occupational therapy to improve quality of life for patients
- Established neuropsychology services to assess thinking and memory
- Launched programs for Lewy body and frontotemporal dementias
- Developed the Professional Athletes Brain Health Study to examine the longitudinal impact of repeated head injury
- Launched a Parkinson's disease (PD) and movement disorders program
- Established a multiple sclerosis (MS) and neuroimmunology program

**2014**

- Established a brain imaging research team harnessing imaging technology to observe changes in brain cells, aggregating data to inform novel research
- Trained the first fellow in Nevada's only Behavioral Neurology & Neuropsychiatry program
- Established a multiple system atrophy program

**2018**

- Established the Professional Sports Brain Health Coalition, a first-of-its-kind entity to convene leaders from diverse professional sports to advance brain safety
- Designated the first and only in Nevada



**2022**

- Granted a 5-year, \$11.3 million COBRE renewal
- Launched a multidisciplinary HD predictive genetic testing clinic and Ataxia Comprehensive Clinic
- Ublituximab became the 5<sup>th</sup> drug studied at our center to receive FDA approval for the treatment of MS

**2024**

- Marked 15 years of impact in Nevada, facilitating 322,850 patient appointments with more than 7,348 lives in our care
- CREXONT® became the 1<sup>st</sup> drug studied at our center to receive FDA approval for the treatment of PD
- Designated Nevada's only NMSS Center for Comprehensive MS Care



### **2025: Cleveland Clinic Concierge Medicine Opens in Las Vegas**

The new, members-only primary care program offers proactive, preventive, comprehensive care while cultivating patient-physician relationships that support each member's health goals.

▶ **Join our list of interested members: [clevelandclinic.org/conciergentat](https://clevelandclinic.org/conciergentat)**



## DIRECTOR'S MESSAGE

Cleveland Clinic Lou Ruvo Center for Brain Health did not exist when the family of the man whose name it bears so desperately needed it. But because of the Ruvo family's vision, the generosity of our donors and the Power of Love® (see page 27), since 2009 the Lou Ruvo Center for Brain Health has been here to provide care and education to our community.

### **POWER IS ABOUT THE EFFECT YOU HAVE ON THE WORLD AROUND YOU**

The power of knowledge has led to eight FDA approvals based on studies in which our center participated, not to mention countless lives improved through accurate diagnoses, personalized treatment, expert rehabilitation, caregiver support and behavioral counseling. And the quest continues (see page 9).

In June, we marked the fifth anniversary of our Women's Alzheimer's Movement Prevention and Research Center, a collaboration with Maria Shriver that demonstrates the power of philanthropy (see page 21).

My colleagues at the Lou Ruvo Center for Brain Health used their skills and training to schedule, treat, support and teach during more than 30,000 appointments in 2024. We stand ready to do even more — and just in time, because Parkinson's disease has recently become the fastest growing neurological condition worldwide (see page 12), while cases of dementia are anticipated to double by 2060 (see page 7).

A global health system, Cleveland Clinic is currently expanding its footprint in Las Vegas with the fall 2025 launch of Cleveland Clinic Concierge Medicine, which offers membership-based primary care (see page 5).

Thanks to a developing endowment campaign (see page 20), I know that together we will generate the power to foster better health in our community.

And remember, it all started with the Power of Love.

### **DYLAN WINT, MD, FAAN**

*Medical Director*

*Camille and Larry Ruvo  
Chair for Brain Health*

*Director, Education*

*Las Vegas Legacy  
Chair for Neuroscience  
Education*

**Cleveland Clinic Nevada**



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**On the cover:**

Charles Bernick, MD,  
Section Head, Cognitive Disorders,  
Cleveland Clinic Lou Ruvo  
Center for Brain Health

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# NEW THINKING ABOUT THINKING



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**Research, treatment and education for patients and families living with brain disorders**

ALZHEIMER'S DISEASE	HUNTINGTON'S DISEASE	MULTIPLE SCLEROSIS
FRONTOTEMPORAL DEMENTIA	PARKINSON'S DISEASE	AND NEUROIMMUNOLOGY
LEWY BODY DEMENTIA	ATAXIA AND	
AND OTHER DEMENTIAS	OTHER MOVEMENT DISORDERS	



## CLEVELAND CLINIC CONCIERGE MEDICINE

### Introducing a New Approach to Primary Care, Opening in Las Vegas in 2025

Lauren Faulkner is waltzing through life again, enjoying good health and her passion for ballroom dancing after a scare that almost changed everything. The now 75-year-old credits the Cleveland Clinic Concierge Medicine program and her doctor, Stephen Avallone, MD, for her second chance at life.

Faulkner began ballroom dancing in 2016 and had worked her way up to a competitive level, practicing several times a week. In March 2023, Faulkner was preparing for an upcoming ballroom dance competition when she suddenly felt very winded and her right arm ached, causing her to sit down and rest. This happened several times during the lesson, which was concerning to her and even more so to Faulkner's teacher, who says she never takes a break.

When her symptoms persisted the following morning, she called Dr. Avallone, Regional Medical Director for Cleveland Clinic Florida's Concierge Medicine program and Center Director, Concierge Medicine, who is overseeing the 2025 opening of additional sites in Florida, Ohio and Las Vegas.

"When I got to Dr. Avallone's office, my pulse was in the 30s and, apparently, my EKG results were alarming," she says.

Dr. Avallone told Faulkner she needed to go to the hospital immediately. Once there, additional testing showed that she was in total heart block — a condition in which the electrical signal that controls your heartbeat is completely blocked. Doctors implanted an emergency pacemaker that evening.

▼ Lauren Faulkner



"If it hadn't been for Concierge Medicine I probably would not have survived," Faulkner says.

"The key features of this primary care program are the time and availability of your healthcare team," Dr. Avallone says. "The patient and doctor are more directly connected, and we can build better relationships. Doctors and medical staff

are reachable all day, every day by phone or electronically through the MyChart app and electronic medical record. It's a great way to practice medicine."

Faulkner is doing well and says that signing up for the Cleveland Clinic Concierge Medicine program was the "best decision I ever made."



Continue the story online and watch the video: [clevelandclinic.org/ballroom](https://clevelandclinic.org/ballroom)



### **YOUR REASON FOR JOINING CONCIERGE CARE WILL BE AS UNIQUE AS YOU ARE**

Maybe you're a person who values spending more time with your doctor when you visit. Or you appreciate immediacy — being able to get in to see your provider quickly. A chronic condition could be your reason. Perhaps you need to coordinate your frequent visits with several specialists. Maybe you're looking for comprehensive health services that come with dedicated attention to your needs.

We'll meet you where you are and help you navigate the many ins and outs of healthcare. Simply put, we'll smooth out your healthcare journey. Your membership puts you into a custom-built service with your well-being front and center.

Benefits of your concierge membership:

- Physician communication available 24 hours a day.
- Personalized treatment plans based on medical history and lifestyle.
- Access to top specialists throughout the Cleveland Clinic health system.

### **CONCIERGE MEDICINE CAN HELP WITH ALL OF THAT AND MORE. ARE YOU READY?**

Cleveland Clinic Concierge Medicine is a paid subscription-based program. Join our list of interested prospective members. We will contact you for a no-obligation, no-cost meet and greet with a physician.

[clevelandclinic.org/conciergeat](https://clevelandclinic.org/conciergeat)



### **INTRODUCING**

Dr. Erine Erickson,  
Medical Director  
at Cleveland Clinic  
Concierge Medicine  
in Las Vegas

Erine Erickson, MD, is a board-certified internal medicine physician with a deep commitment to personalized, whole-person care. She has practiced in both acute and ambulatory settings, caring for medically complex patients while emphasizing prevention, lifestyle and long-term wellness.

"I enjoy listening, getting to know each patient as a person, understanding their needs and goals, and building integrated care plans that are both evidence-based and deeply customized," she says.

Dr. Erickson is excited to help bring a new primary care offering, Cleveland Clinic Concierge Medicine, to southern Nevada in August 2025.

"This isn't just another concierge practice," she says. "Ours is a comprehensive service based on the concierge model developed and supported by Cleveland Clinic, long recognized as one of the world's most respected and innovative health systems."

Meet Dr. Erickson in this video:  
[clevelandclinic.org/erickson](https://clevelandclinic.org/erickson)

## DEMENTIA IS DOUBLING:

# 14 Ways to Avoid Becoming a Statistic

In January 2025, *Nature Medicine* published an alarming prediction: In the United States, the number of adults who will develop dementia each year is projected to increase from approximately 514,000 in 2020 to 1 million in 2060. The study also estimates:

- Lifetime dementia risk at 42%, with incidence increasing after age 75
- Highest projected rates in Black adults, women and those with genetic risk (APOE4 carriers)

In April 2025, the Alzheimer's Association released its 2025 Alzheimer's Disease Facts and Figures report. For the first time, there are now more than 7 million Americans living with Alzheimer's — an estimated 7.2 million.

Fortunately, this dire news is somewhat counterbalanced by news from the Lancet Commission on dementia prevention, intervention and care, who in 2024 announced that 45% of cases of dementia can be prevented via risk reduction. And they identified two new risk factors for dementia — high LDL cholesterol and uncorrected vision loss — bringing the total modifiable risk factors to 14 (see sidebar).

"This means that as individuals, we now have 14 options for reducing our risk for dementia," says Dylan Wint, MD, Medical Director, Cleveland Clinic Nevada. "We're offering women who participate in our Women's Alzheimer's Movement Prevention and Research Center customized plans for reducing personal risk for a disease that has affected their family. They tell us that for the first time, they're feeling empowered to fight dementia." (See page 21.)

While some of these risk factors may be difficult for individuals to control, such as air pollution where we live, others are much more approachable. He says excessive alcohol consumption (more than one drink daily for women, two for men) and a sedentary lifestyle are two factors he addresses with patients.

"Exercise is the most effective," Dr. Wint says. "Regardless of where you live or what your socio-economic status may be, walking is easy for most and it costs nothing. If the weather is uncomfortable or your neighborhood unsafe, consider walking indoors at a mall or supermarket."

He acknowledges that some factors, such as diabetes and hypertension, are best managed for those who have access to primary care providers or specialists, but says, "Control the factors you can, and know that taking some action to reduce your risk for dementia is better than doing nothing at all."

Charles Bernick, MD, who has served as the principal investigator of most of Cleveland Clinic Lou Ruvo Center for Brain Health's research studies of cognitive disorders, says, "Fortunately, advancements in Alzheimer's diagnostics and treatments offer more options to patients and families, but early and expert diagnosis is key."

His best tip? If you notice cognitive changes, don't fear the worst. In some instances, cognitive impairment is reversible, such as that caused by drug interactions, uncorrected illnesses like a hormone or vitamin imbalance, or inadequate sleep due to a sleep disorder, bad sleep habits or anxiety.

Dr. Bernick says, "Among the general public, it's not uncommon to have some of these manageable factors. Before you assume it's Alzheimer's disease, talk with your primary care provider."

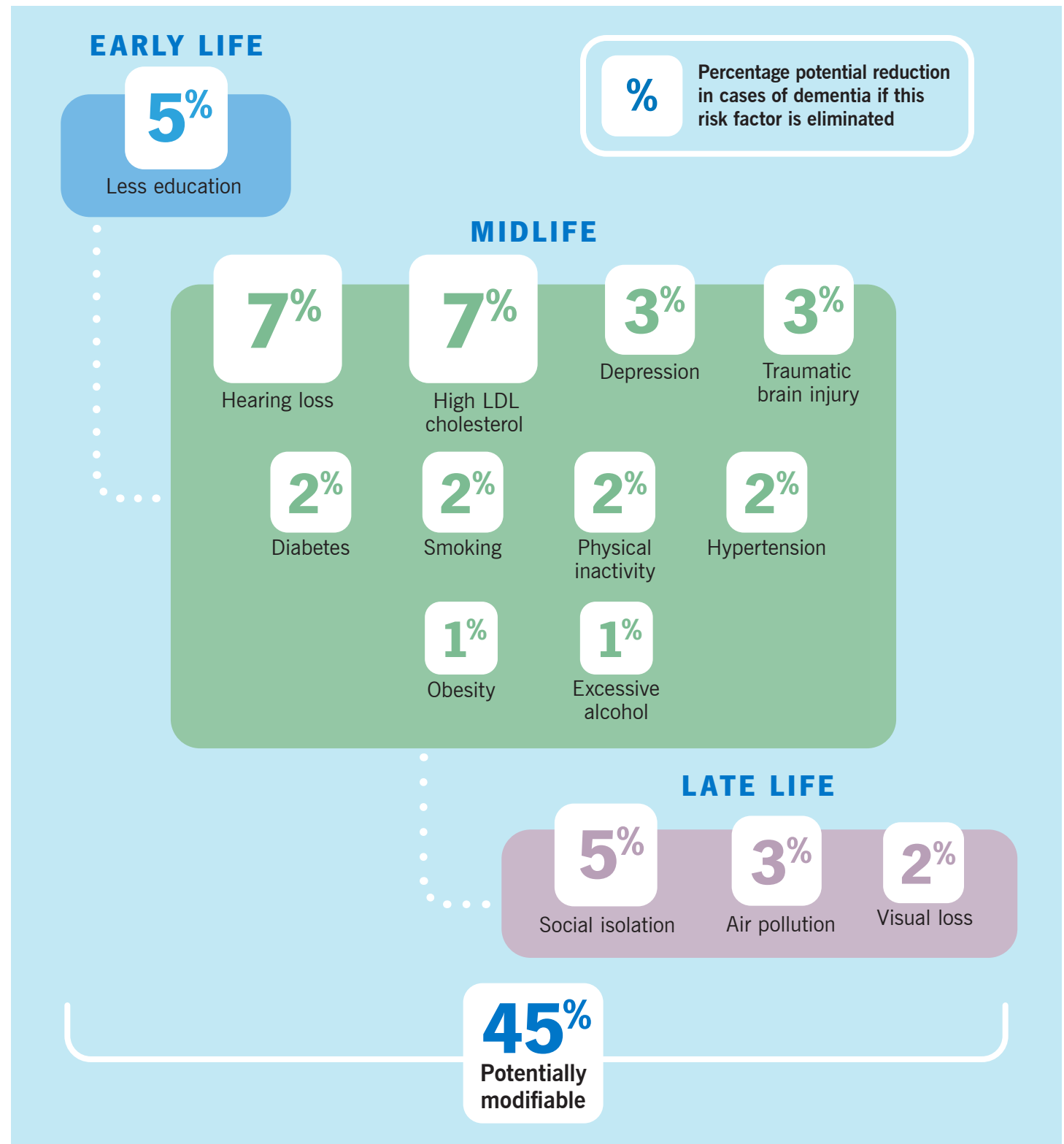
**+** Continue the story online:  
[clevelandclinic.org/14ways](https://clevelandclinic.org/14ways)



△ Dr. Charles Bernick



# 14 Risk Factors for Dementia



## RESEARCH SHOWS PROMISE

## In Slowing Disability Progression In MS

A Cleveland Clinic-led trial shows promising results in delaying the progression of disability in patients with non-relapsing secondary progressive multiple sclerosis (SPMS), a form of the disease where neurological function gradually worsens over time and disability increases relentlessly.

▼ *Clinical Trial Investigators*

The phase 3 HERCULES trial, which included participants at Mellen Center for MS Research and Treatment in Nevada and Ohio, involved the use of tolebrutinib, part of a drug class originally developed to treat lymphomas and related blood disorders. The results, published in the *New England Journal of Medicine* and presented in April at the American Academy of Neurology's 2025 annual meeting, indicated a 31% reduced risk of sustained disability progression.

## A SIGNIFICANT MILESTONE FOR PATIENTS

"This is the first clinical trial showing a positive effect in delaying disability progression in non-relapsing SPMS," said neurologist Robert Fox, MD, the paper's lead author, chair of the HERCULES Global Steering Committee and Interim Research Director at Cleveland Clinic Lou Ruvo Center for Brain Health.

Tolebrutinib is thought to work by decreasing chronic inflammation in the central nervous system, a key driver of the gradual disability observed in MS. This suggests that the drug could potentially pave the way for a new class of approved medications for the treatment of MS, the leading cause of non-traumatic disability in young adults.



The trial also illustrated successful research coordination across multiple Cleveland Clinic locations, with site principal investigator Carrie Hersh, DO, MSc, overseeing the study in Nevada.

Tolebrutinib is currently under review by the U.S. Food and Drug Administration (FDA) for use in MS.

**If you're interested in opportunities for participating in research at Cleveland Clinic, please visit [clevelandclinic.org/nevadaresearch](https://clevelandclinic.org/nevadaresearch) or contact us at 702.701.7944.**



Continue the story online: [clevelandclinic.org/herculescqld](https://clevelandclinic.org/herculescqld)

## NEW TOOL ASSESSES LINK

# Between Lifestyle and Neurocognitive Health



A new assessment tool developed at Cleveland Clinic Nevada aims to enhance understanding of the impact of lifestyle choices in improving how the brain adapts, while reducing the risk of Alzheimer's disease (AD). The dynamic Neurocognitive Adaptation (dNA) scale, a questionnaire that takes about 15 minutes to complete and covers a variety of experiences across an individual's lifetime, evaluates how certain activities may support brain health.

More than 7 million Americans currently live with Alzheimer's disease, and that number is expected to increase to nearly 13 million by 2050. Studies of the association of lifestyle factors and lower risk are yielding promising news for the future of AD, says Filippo Cieri, PsyD, PhD, a researcher at Cleveland Clinic Lou Ruvo Center for Brain Health, who has published his team's findings.

"People are living longer. With this increased life expectancy, we also have more people living with neurodegenerative diseases, such as Alzheimer's disease," says Dr. Cieri. "The good news, however, is that the 2024 Lancet Commission on dementia prevention, intervention and care estimated that around 45% of dementia cases are preventable."

Collectively, particular lifestyle choices and conditions are thought to build neurological reserves, resilience and resistance — assets that help individuals remain neurocognitively healthy as they age.

The dNA tool has been used since 2024 in the Women's Alzheimer's Movement Prevention and Research Center at Cleveland Clinic, and Dr. Cieri has received requests to use the dNA from more than a dozen organizations across the United States, Europe and Asia.

"Our findings suggest that engaging in diverse activities throughout one's life can significantly boost brain plasticity or resilience. This flexibility is essential in reducing the risk of Alzheimer's disease," says Dr. Cieri.

### EVALUATING FOUR AREAS OF ACTIVITY

The dNA scale features 20 questions related to four dimensions: physical, cognitive, creative and social. Examples of questions include, "How often did you read or do you currently read books/e-books/audiobooks?" and "Were you or are you currently engaged in physically demanding work activities?"

Among ways the new questionnaire improves upon previous assessment tools is that it considers the frequency of activities across seven decades from childhood years (0–10) through old age (65 and older). Recent research indicates that engaging in some activities at certain stages of life, especially midlife, may provide stronger protection against dementia.


The scale also considers the influence of creativity, which Dr. Cieri says has been under-considered in previous research.

### FUTURE DIRECTIONS

The power of the environment should not be underestimated in its potential to protect against neurodegeneration, says Dr. Cieri.

"We are no longer asking if people who are more involved in these activities are more protected compared to people who are not involved at all. We already know the answer is yes," he says. "Now we are trying to understand more precisely how the enriched environment affects both

neuropsychological values (such as memory, executive function and verbal fluency), as well as the brain's structure (volumetric and cortical thickness) and functional connectivity."

 **Continue the story online:**  
[clevelandclinic.org/dna](https://clevelandclinic.org/dna)

### DONOR SUPPORT MAKES NOVEL RESEARCH POSSIBLE

**"Listening to Cleveland Clinic's Emerging Scientists discuss their research inspired us to believe better understanding of brain health is truly possible. This is the type of future we want to invest in," says Sandy Hardie, explaining why she and husband, Steven Hardie, chose to support Dr. Cieri's work.**

**The Emerging Scientist Award Program at Cleveland Clinic supports neurological researchers who are pioneering novel projects and investigating disease-altering therapies. You can support their innovation. Contact us at [DonateNevada@ccf.org](mailto:DonateNevada@ccf.org) or 702.263.9797.**



^ Steven and Sandy Hardie

# UNDERSTANDING BEHAVIORAL SYMPTOMS IN DEMENTIA

## Is Key to Providing Comprehensive Care

If your spouse tells you they're going out, but you're forgetful and it slips your mind and you can't find them, you may wonder: *Where are they? Why didn't they tell me where they were going?* You may be agitated, irritable and even suspicious by the time they get home a few hours later.

"Cognitive dysfunction can sometimes contribute to behavioral symptoms perhaps as much as the actual physical degeneration and neurochemical degeneration of the brain itself," says Dylan Wint, MD, a behavioral neurologist and neuropsychiatrist, and medical director of Cleveland Clinic Nevada. He notes that approximately 90% of individuals with Alzheimer's dementia experience neuropsychiatric symptoms significantly impacting their quality of life and that of their caregivers. These commonly include depression, irritability, anxiety and apathy.

"A spouse, parent or child no longer recognizing who they are, or disconnecting who they are from

the emotional relationship that they've had over the years, is one of the most devastating things that happens to a family caregiver," says Dr. Wint. "It's fundamentally a destruction of what has typically been a decades-long relationship."

There can also be paranoia. "One of the more common delusions is someone truly believing that a loved one or a caregiver is out to kill or harm them," says Dr. Wint. "And in some situations, such intense paranoia is also related to cognitive decline."

"Medication refusal due to a fear of harm could be a subtler sign of paranoia," he says. "Whereas when a care partner reminds someone with cognitive loss who isn't paranoid, 'These are the medicines the doctor suggested you take,' typically they'll go along with it."

Although it's difficult to avoid taking these behaviors personally, Dr. Wint says it is essential that care partners understand the behavior isn't coming

from the person you knew, but from the disease. Behavior is controlled by the brain, so when a brain has been impaired, you can expect that behavior will be impaired, too.

"In individuals with dementia, the source of many of these behaviors is absence of information due to forgetfulness or lack of comprehension, triggering a response that is fearful and self-protective," says Dr. Wint.

He encourages care partners to learn more through Cleveland Clinic Lou Ruvo Center for Brain Health's free educational, therapeutic and support programs, which are held online daily and increasingly in person, too.

**Sign up to receive a calendar of upcoming programs in your inbox:**  
[clevelandclinic.org/nvnews](https://clevelandclinic.org/nvnews)

 **Continue the story online:**  
[clevelandclinic.org/wintbehavior](https://clevelandclinic.org/wintbehavior)

### DEMYSTIFYING BEHAVIORAL SYMPTOMS

In people with relatively mild dementia, the most common neuropsychiatric symptoms are depression, irritability and anxiety. As dementia progresses, so does the severity of the symptoms, typically including agitation, aggression, hallucinations and delusions.

BEHAVIORAL SYMPTOM	WHAT IS IT?	HOW COMMON IS IT?
Agitation	Excessive, inappropriate activity	More than 25% of people with early dementia; 40 to 60% as dementia progresses
Apathy	Decreased goal-directed activity or emotion	50-70% of people with early dementia; as many as 90% as disease progresses
Delusions	Fixed false beliefs that persist despite evidence to the contrary	As many as 15% of people with early Alzheimer's disease (AD), and at least 40% as AD progresses
Hallucination	Internally-generated sensory experiences (seeing something that's not there would be a visual hallucination)	As many as 15% of people with early AD; more than 50% as AD progresses 50 to 60% in early Lewy body disease
Paranoia	A preoccupation with thinking that others intend to hurt them	Approximately 30% of people with AD
Pseudobulbar affect	Inappropriate, uncontrollable emotional expression: "emotional incontinence"	As many as 30% of people with AD



## MARRIED COUPLE SHARES

### Life, Love – and a Disease

In 2006, Larry Wolf was diagnosed with Parkinson's disease (PD) at age 66, more than a decade after surviving a serious car accident. He and his wife Rivka decided to learn everything they could about PD and make the most out of what she viewed as "a second chance at life."

"Cleveland Clinic Lou Ruvo Center for Brain Health became like a second home for us," she says. Larry participated in research studies, the couple attended support groups and education sessions, and she went to Powerful Tools for Caregivers, a six-week class that helps attendees balance caregiving and self-care.

"Although Larry had been in tip-top shape, the disease was just devouring him," Rivka says. Yet, with the aid of his trademark red walker, they participated in clubs in their 55+ community, went to the movies on Wednesdays, took care of grandchildren on Fridays and enjoyed season tickets to the symphony.

Despite the increasing burden of caring for her husband, Rivka still squeezed in a few weekly tennis games. However, she began noticing that her left arm wasn't swinging quite as well, and her left foot was dragging on the court. Between what she had learned at Cleveland Clinic and her own family history of Parkinson's disease, Rivka feared a familiar culprit. She was diagnosed with PD in 2017.

PD is a common degenerative brain disease for which the majority of cases have no known cause (often referred to as "idiopathic"). However, genes related to Parkinson's disease that run in families and certain environmental exposures increase the likelihood of PD during a person's lifetime.

"Shared exposure to environmental factors makes Parkinson's disease in married couples more common than one might think," says Zoltan Mari, MD,

Director, Parkinson's Disease and Movement Disorders Program, who began caring for Rivka in addition to Larry.

A study published in 2010 in *Parkinsonism and Related Disorders* highlighted 18 married couples with PD who lived together for an average of 40 years prior to the onset of motor symptoms. The article cited rural living, industrialization, pesticides and exposure to heavy metals among suspected environmental causes.

"What are the chances that a woman with a family history of Parkinson's disease would marry a man who develops an idiopathic form of the same disease?" notes Dr. Mari. Increasingly likely, it seems, given that PD has recently been identified as the fastest growing neurological condition worldwide, attributed to an aging population, enhanced diagnostic tools and the increasing impact of environmental factors.

Larry passed away in 2021. Rivka, now 81, exercises daily and attends a boxing class for individuals with Parkinson's disease, which provides both physical activity and social engagement. She travels and spends time with family.


Over the past eight years, Rivka has experienced minimal disease progression, takes low-dose medication and is completely independent in her daily activities, says Dr. Mari. "Her resilience highlights the profound impact exercise and community involvement can have in slowing PD progression."



^ Larry and Rivka Wolf

After 15 years as a caregiver to her husband, Rivka says, "Now, I'm my own caregiver. It gives me tremendous satisfaction to accomplish what I do."

While Rivka enjoys spreading positivity to others facing PD, she is also realistic. "Be flexible around the changes life sends your way. Plan for your future with Parkinson's disease," says Rivka, who has put a deposit on an assisted living community. "When the time is right, I'll go there."

 **Continue the story online:**  
[clevelandclinic.org/pdtoxin](https://clevelandclinic.org/pdtoxin)

**Receive information on our  
Parkinson's Foundation Center of  
Excellence education sessions in your  
inbox: [clevelandclinic.org/nvnews](https://clevelandclinic.org/nvnews).**



**YOU TRUST US WITH YOUR BRAIN.**

Now Cleveland Clinic Nevada  
can give you a better picture  
of the rest of your body, too.



#### Expanded services across multiple imaging modalities

- CT
- Nuclear medicine (PET and SPECT)
- MRI
- Whole body MRI for early detection
- *Coming soon:* Cardiac scoring

#### Twisted your ankle or wrenched your back?

Imaging everything except the breast, we can help your referring physician see what's going on.

#### Trying to be proactive with your health?

If you're seeking the peace of mind that a non-invasive overview can provide, our whole body MRI may be for you, detecting possible problems near their onset and potentially improving the efficacy of any necessary treatment.

#### Specialized readings from head to toe

Your scan will be performed in our imaging department on the first floor of our neurology clinic.

Images captured here in Las Vegas are interpreted by radiologists throughout our global health system who focus on specific body parts or conditions. Cleveland Clinic's Imaging Institute employs more than 200 staff radiologists and conducts more than 2.7 million exams annually.

#### When you need us, we're here for you with:

- › Extended hours:  
From 6 a.m. to 7 p.m. weekdays.  
Now open Saturdays, too.
- › Same-day appointments are often available.
- › Imaging results are typically available within 24 hours.

#### Make an appointment for imaging needs beyond the brain:

- › **Obtain a referral** from your primary care physician or specialist and fax it to:

**702.701.7986.**

- › **Questions?** Call our dedicated imaging appointment line:

**702.701.7948.**

**[clevelandclinic.org/nevadaimaging](http://clevelandclinic.org/nevadaimaging)**

## BLOOD-BASED BIOMARKERS:

### What's the Buzz?

Imagine noticing small changes in your or a loved one's cognition: Might they be early symptoms of Alzheimer's disease (AD)? Just getting older? Effects of a recent illness? Or could it be something else?

This question challenges neurologists, too, who commonly create a differential diagnosis, or list of likely causes for your symptoms. Maybe the culprit is something that can be managed, such as depression, a B12 vitamin deficiency, chronic dehydration or malnutrition.

From impractical brain biopsies to cerebrospinal fluid analysis to expensive amyloid PET scans, an increasing assortment of measures are available to diagnose Alzheimer's disease. In search of lower-cost, easier-to-administer yet accurate tools, the AD research community holds high hopes for blood-based biomarkers (BBB), measurable signs of disease that could be obtained through a simple blood draw at a neighborhood lab.

In an important step in that direction, on May 16, 2025, the Food and Drug Administration (FDA) approved the first blood test used in diagnosing AD, noting in its press release that the test "is not intended as a screening or stand-alone diagnostic test and other clinical evaluations or additional tests should be used for determining treatment options."

Knowing that an individual is accumulating abnormal amyloid protein in the brain opens doors for participation in clinical research, when it's essential to know whether study participants have the condition for which researchers are testing a treatment. In a clinical setting, positive amyloid status is required for use of recently-approved drug treatments (lecanemab, donanemab) that target amyloid — perhaps the earliest contributor to AD. Conversely,

biomarkers that appear normal may exclude AD as the cause of a patient's cognitive symptoms.

"If the ongoing, multisite AHEAD study proves that anti-amyloid treatments can be effective in slowing or stopping early brain changes due to AD in pre-symptomatic individuals, then a convenient, accurate, low-cost test for amyloid will be essential to making early treatment broadly accessible," says Charles Bernick, MD, who serves as the study's principal investigator in Las Vegas.

Until then, he recommends using BBB only to help plan treatment in individuals exhibiting symptoms, not "just out of curiosity," says Dr. Bernick. "A lot of older individuals have amyloid present in the brain, but many of them will never show signs of Alzheimer's. If you're not having symptoms, knowing your BBB results might simply cause unnecessary worry."

Aside from age, genetics is another risk factor for AD. There's a test for the most common gene associated with the disease — apolipoprotein E (APOE4). However, like BBB testing, Dr. Bernick doesn't recommend APOE4 testing unless symptoms are present.

"The APOE4 gene informs you of your risk of developing AD, not whether you will definitely develop the disease and at what age," he says. "In addition, test results could have broader-reaching implications, such as eligibility for long-term care insurance, so discuss the pros and cons of testing with your doctor and how the knowledge will help or hinder your plans for the future," says Dr. Bernick.

#### A MEETING OF MINDS

In June 2025, an invitation-only group of leading Alzheimer's disease researchers from around the world convened at Cleveland Clinic Lou Ruvo Center for Brain Health for the Leon Thal Summit® conference. They discussed new, potential biomarkers for chronic traumatic encephalopathy (CTE) in hopes of expanding the Traumatic Encephalopathy Syndrome (TES) criteria, thus enabling the possibility of diagnosing CTE prior to autopsy.



#### WHO WAS LEON THAL?

The groundbreaking for Cleveland Clinic Lou Ruvo Center for Brain Health took place on February 9, 2007, just six days after Dr. Thal's fatal plane crash. Tragically, Dr. Thal died before he could fulfill his promise to serve as our center's director, but we sustain his legacy through the summit that bears his name.

## BY PATIENTS, FOR PATIENTS:

# Tips for Navigating Life with Brain Disease

Patty Joyce, who is 63 years old and was diagnosed with primary progressive multiple sclerosis (MS) in 2021, is the inspiration for this article. During an appointment with her neurologist Le Hua, MD, Director, Multiple Sclerosis and Neuroimmunology Program at Cleveland Clinic Nevada, Joyce suggested that *New Thinking* magazine include tips from patients for living life to the fullest with brain disease.

Joyce and members of our Voice of the Patient and Family Advisory Council share their advice derived from first-hand experience living with or caring for someone with cognitive disorders, movement disorders and multiple sclerosis.



^ Patty Joyce

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### Get the most out of your neurology appointment

"I keep close watch on changes in my condition, noting them in orange on my electronic calendar. Through this color coding, I'm able to easily identify all the items I want to share in my next neurology appointment."

– Patty Joyce

"About a week before my neurology visit, I start a diary: What I ate, whether I took my Parkinson's disease medicine on time, was feeling any extra stress, had exercised, what helped, how I felt and if possible, why. Life is complicated because we have lots of different issues. If I'm more cognizant of what's working for me and what isn't, both my doctor and I can learn from my observations."

– Nancy Stillwell

"When you have an appointment, make plans to arrive on campus early or stay late. Visit the library. Take a walk in the garden. Have lunch at the café. Don't rush yourself. You might be pleasantly surprised by who you meet or what you learn."

– Tina Dortch

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### Lean on support groups and resources

"Don't go it alone. Find a way to be around others like you who have a similar condition. Everyone has problems; everyone also has solutions. Sharing with others makes things that much better for all."

– Steven Pastrone

"As a caregiver to my dad, I learned that talking to people who are living with Parkinson's disease can offer answers to things my dad couldn't because of his level of dementia. A woman in a Parkinson's disease support group shared, 'A horse sneezed in Belgium' and I thought 'What?!' But that's the point: there's often no logical explanation for how our care recipients behave, and it was helpful for me as a caregiver to understand that."

– Karen Wall

"Go visit Verla at the Lynne Ruffin-Smith Library. On many occasions, I've been at the Lou Ruvo Center for Brain Health with my parents, and I didn't have to say anything. Verla recognized I was struggling and gave me a hug. She has resources at her fingertips and always comes through with tips, be they one-on-one or in classes she teaches, such as Powerful Tools for Caregivers."

– Kate Arnoldy

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## Commit to exercise

“My Cleveland Clinic neurologist said not only is exercise medicine, but it’s the only ‘medicine’ currently believed to slow the progression of Parkinson’s disease. He told me about a boxing class for individuals with Parkinson’s disease. What I’ve learned is that if I enjoy an activity, it’s easy to sustain it.”

– Greg O’Keefe

“I had always done a lot of sports, until my MS started acting up and I stopped it all. On Dr. Carrie Hersh’s suggestion, I started going to the gym in 2023. At the beginning it was tough. Now, whether it’s the routine, or the mindset, I look forward to going to the gym a few times a week. Having others join you can be fun, too. My wife started, and now my mom, who is 88, comes along and rides a stationary bike for an hour.”

– Raul Hernandez

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## Make wellness a habit

“Behavioral Health Therapist Tiarra Atkinson suggested a cost-efficient weighted blanket, which has been a game changer, helping me achieve more restful sleep. She also advised to keep daytime napping to no more than an hour to avoid disrupting my nighttime sleep.”

– Keiara Katz

“Dr. Dylan Wint told us to establish a routine. That predictability helps reduce anxiety and provide stability, which is comforting for both me as the caregiver and for my mom as the care recipient.”

– Laura Berger

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## Take advantage of specialized physical, occupational and speech therapy for neurological conditions

“Be open to all recommendations from your Cleveland Clinic neurologist and you may be surprised by the outcome. At first, my husband Larry and I couldn’t understand how speech and occupational therapy could help. Yet, he was able to retain his independence through swallowing skills he learned in speech therapy, and I was able to keep Larry at home until the end because of all the tips we received for using mobility devices and transferring him safely.”

–Jeanne Isaac

“Don’t hesitate to try physical therapy. It may help you when you least expect it. I hadn’t fallen in three years, but when my dog cut in front of me and I fell on concrete, amazingly I suffered no pain, no broken bones, no head impact. I ended up with just two scrapes on one hand. As I thought about it, I’m sure it’s because during all these years of physical therapy, they taught me how to prepare for a fall without knowing when it was going to happen.”

– Vivian Eddins

“While serving in the Navy, I learned the saying ‘Change, adapt and overcome your situation.’ This can also be an empowering approach to the unique challenges your health may pose. Today, I look for ways to retain my independence and continue activities that are important to me. I asked my physical therapist for an alternative to a walker. He pulled out trekking poles, we went outside and walked both backward and forward on uneven surfaces to simulate the hikes I enjoy.”

– Al Dunnings

## DIRECT TO YOUR INBOX

Sign up for our enews to receive tips, tricks and a calendar of free educational programming from Cleveland Clinic Lou Ruvo Center for Brain Health, your trusted source of information.

[clevelandclinic.org/nvnews](https://clevelandclinic.org/nvnews)



THE ORIGIN OF GIVING:  
Yesterday's Experiences Influence Today's Generosity

Each donor to Cleveland Clinic Lou Ruvo Center for Brain Health has a personal reason for giving. Many have been inspired by examples of generosity set by their parents or the charity of strangers. Remembering those who prioritized philanthropy, they now recognize the center's incredible impact and choose to support it.

As a nonprofit healthcare organization, Cleveland Clinic invests gifts of all sizes in providing compassionate care, conducting lifesaving research and educating patients, their families and our community.

▽ Nuwan Ariyawansa, right, with his father, Ari



**NUWAN ARIYAWANSA**  
Inspired by Empathy

Who first opened your eyes to the impact giving can make?

In the early years of my father Ari Ariyawansa's 16-year battle with Parkinson's disease, he continued his work as mathematics department chair, relentlessly pursuing external grants and publishing research that would elevate the department and his graduate students' national profile, contributing to a legacy of research.

How does giving to Cleveland Clinic Lou Ruvo Center for Brain Health make you feel?

Dr. Zoltan Mari and his team cared so empathetically for my father during his final years living with Parkinson's disease, always looking for new treatment solutions, monitoring his condition and minding my father's wellbeing. I feel honored and grateful to contribute to their research. I know Cleveland Clinic will make the best use of the funds as they seek better treatments for Parkinson's disease that can help other families. My father would have wanted us to make this contribution now and in the future.

▽ Betty and Carl Guerreri



**CARL GUERRERI**  
A Vendetta Against Alzheimer's

We weren't affluent, but throughout my childhood, my parents would consistently put a little bit in the red Salvation Army kettles. Now, when people find out my wife and I support various nonprofits, they sometimes tell me, 'What you're doing is only a drop in the bucket.' I say yes, but if you don't put a drop in the bucket, it will never fill up.

I'm Sicilian, and when we're mad, we make a vendetta. Well, I have a vendetta against Alzheimer's disease, which took my mother-in-law and then in 2020, my wife, Betty. My ultimate hope is a cure, but more realistically, a way to keep Alzheimer's disease from progressing: I'm not expecting a miracle, but I'd like to contribute to a solution.



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**You can help further this mission. Contact us to discuss what we can do together: 702.263.9797 or [DonateNevada@ccf.org](mailto:DonateNevada@ccf.org).**

✓ *Marjorie St. Pierre and Dr. Anthony Cox*



### **MARJORIE ST. PIERRE**

#### **A Fortunate Referral**

Although I worked part-time in college, I was always strapped for money. There was an office that would give students in need a small loan, and they lent me \$50. Making the ask was embarrassing, and I was devastated. However, the experience taught me that economic hardship can affect any person at any time in life, and generous compassion can make a real difference.

Following a diagnosis of Parkinson's disease, my husband, Dr. Tony Cox, was referred to the Lou Ruvo Center for Brain Health. Dr. Zoltan Mari has been instrumental in championing his care, including arranging Tony's deep brain stimulation surgery at Cleveland Clinic's main campus in Ohio. The extraordinary care and impressive medical technology have improved Tony's quality of life greatly.

Tony and I are excited that most of our bequest will be used to fund research to enhance understanding of Parkinson's disease and hopefully help Cleveland Clinic develop innovative solutions for reducing symptoms, perhaps eventually eliminating the disease altogether.

✓ *(L to R) Charles Matsumoto, Carol West, Mary Matsumoto and Gregg Matsumoto*



### **GREGG MATSUMOTO**

#### **Contributing for a Bigger Purpose**

Growing up, my parents took me to church each week, where I'd see my dad put money in the offering plate. When I asked why, he explained the gifts would help others. When I joined the Air Force after college, we could choose to have money deducted each week from our paychecks that would be distributed to an assortment of nonprofits. I enjoyed the process of selecting which ones I would support.

My mom recently passed of Parkinson's disease. Now, my dad is also a patient at the Lou Ruvo Center for Brain Health, seeing Dr. Wint. Giving to Cleveland Clinic makes me feel good, but it's also bittersweet. I hate that these diseases are even a thing in this world. I'm contributing for a purpose bigger than myself, and I think my parents would be happy, if not proud. Eventually, there will be ways to slow or stop this disease that will spare others from watching their parents' decline.

✓ *Necole and her father, William D. Patton*



### **NECOLE MITCHELL**

#### **Spiritual Giving**

My family is very spiritual. Often, my dad and I would be out running errands, he'd see someone in need, and he'd buy them a meal or give them more than they asked for. He would tell me, 'God gives us everything, and we are to give to others.'

I inherited some money from my dad's aunt, a person who gave and gave. So, I gave some to the Lou Ruvo Center for Brain Health where I've been able to see neurologists Drs. Charles Bernick and Le Hua, who listen, answer all my questions and seem to truly care about me, a person with multiple sclerosis.

I feel full of love, gratitude and privilege to be able to see these doctors and to participate in research, too. I want the research and care at Cleveland Clinic to continue on and to help people like me.

# WOMEN'S ALZHEIMER'S MOVEMENT PREVENTION AND RESEARCH CENTER

## HERE IN LAS VEGAS:

We're providing customized risk-reduction approaches for each woman.

## BECAUSE:

- › Women represent **two-thirds of the cases** of Alzheimer's disease — and **two-thirds of its caregivers**.
- › New research indicates dementia cases may **double by 2060**.
- › **45% of Alzheimer's disease cases may be preventable** by making lifestyle changes, including diet and exercise.

## PLEASE HELP SPREAD THE WORD TO WOMEN WHO ARE:

- › Ages 30-60
- › Worried about Alzheimer's disease due to family history or known genetic risk
- › Not yet diagnosed with memory loss and not seeking a diagnosis



"The gene for Alzheimer's is in my family, and it has been heart wrenching to watch loved ones pass from this disease. Instead of sitting around and simply wishing for the best, I took action to support my own brain health through the **Women's Alzheimer's Movement Prevention and Research Center at Cleveland Clinic**. By participating in their research, I hope to help future generations, too."

**Dena duBoef-Roth**



"Preventing Alzheimer's disease is still a novel idea, and there's a lot of misinformation on the internet. I came for correct information from professionals who are actively engaged in their own research. Now, I feel well informed and even optimistic about my future."

**Norma Fiedotin**



## APPOINTMENTS:

833.966.3623

## LEARN MORE:

[clevelandclinic.org/wamntat](http://clevelandclinic.org/wamntat)

## ENDOWING OUR FUTURE:

### An Interview with Michael Tang

After traveling extensively to Las Vegas to care for his aging father, Michael Tang, Chairman and CEO of Tang Industries, says his connection to the city deepened, inspiring him to move to Nevada in 2013. Now, Tang is committed to giving back to his community by addressing healthcare and education, which he views as critical issues.



^ Michael Tang

“Las Vegas is a one-generation city that hasn’t had time to develop the depth of education, research centers and medical care available in more mature cities. It takes decades of people who are engaged in an issue to be able to change that,” he says. “I just want to do my part.”

That’s why Tang has chosen to commit both time and financial support to an organization he believes is one of the key players in this mission: Cleveland Clinic Lou Ruvo Center for Brain Health. Tang was drawn to the center not just because of its affiliation with Cleveland Clinic, but because of Keep Memory Alive Chairman and Co-Founder Larry Ruvo’s vision.

“The center is an outlier in the quality of healthcare in Las Vegas, and I believe in the cause,” he says. After spending time with Ruvo and touring the facility, Tang was convinced of its leadership in the research and treatment of brain health.

Now a member of the Keep Memory Alive board, Tang is particularly interested in seeing Cleveland Clinic expand its footprint in Nevada. “It’s interesting that Cleveland Clinic has identified Nevada as an emerging market,” he says. “We usually think of those being in other countries.”

Tang understands that philanthropy is essential for the sustainability of the Lou Ruvo Center for Brain Health, and that’s why he chose to support the center’s endowment: “Being on the board is one thing, but donations really make growth happen.”



#### HELP US SUSTAIN THIS CRUCIAL WORK

You, too, can be part of innovating for better brain health. Cleveland Clinic is committed to growing Nevada's neuroscience landscape with support from a \$100 million endowment campaign.

We're currently just over 50% of the way to our endowment goal. With your help, we will disrupt neurological diseases, saving and changing lives for generations to come.

Contact us to discuss your gift: [DonateNevada@ccf.org](mailto:DonateNevada@ccf.org) or 702.263.9797.



# Celebrating and Funding Innovative Approaches to CLOSING THE GAP IN WOMEN'S RESEARCH

On May 19, 2025, the Women's Alzheimer's Movement (WAM) at Cleveland Clinic and its founder, Maria Shriver, convened leading scientists, clinicians, advocates and innovators to celebrate progress made in women's brain health research at its inaugural WAM Forum, an event established to foster conversation while honoring recipients of the WAM Leadership Awards and 2025 WAM Research Grants.

"Women remain at the epicenter of the Alzheimer's crisis, but their experiences have long been overlooked in research. The WAM Forum represents a culmination of our efforts to transform how we approach women's brain health," says Maria Shriver, who also serves as chief visionary and strategic advisor of the Women's Comprehensive Health and Research Center at Cleveland Clinic.

This year, the 51<sup>st</sup> study will be funded by a WAM Research Grant. Since the program's inception in 2016, WAM Research Grants have helped secure more than \$83 million in additional National Institutes of Health and foundation funding, advancing key discoveries on the role of menopause, inflammation, sleep and diet in women's brain health and opening new paths for personalized Alzheimer's treatments and interventions.

For the first time, WAM bestowed Awards for Leadership in women's health research and caregiving:

- **Elaine Wynn** (see sidebar)
- **Emma Heming Willis** (see photo)
- **MOSH** - The Brain Brand®, founded by mother-son duo Maria Shriver and Patrick Schwarzenegger, received the Corporate Leadership Award for their ongoing support of WAM, having provided more than \$250,000 to support WAM Research grants and promote the importance of brain health and Alzheimer's education to millions of consumers nationwide.

## STRIVING FOR PREVENTION THROUGH RISK REDUCTION

The Forum was held at Cleveland Clinic Lou Ruvo Center for Brain Health, home of the WAM Prevention and Research Center, which marked its fifth anniversary in June 2025. Since its inception, the center has:

- Seen 457 women from 31 states, totaling over 1,658 patient visits.
- Enrolled 281 women (61% of patients) into research focused on understanding the role of stress and estrogen, evaluating lifestyle interventions and assessing changing risk factors.
- Produced 31 talks, 26 publications and 52 posters/abstracts on the link between sex and Alzheimer's disease.
- Received approximately \$8 million in federal grant funding to further examine sex differences in Alzheimer's disease.
- Pioneered characterization of women seeking preventive services in Alzheimer's disease and their shared risk factors, including behavioral health issues and medical comorbidities.

The data collected by the WAM Prevention and Research Center since 2020 has contributed to advancing understanding of women's risk for Alzheimer's disease, and events like the WAM Forum help ensure these findings reach both the scientific community and the public.

Through continued research, it is our hope that one day prevention will be as widely accepted an approach to brain health as it is in heart disease.



^ "There's no roadmap or guide to becoming a caregiver, and we desperately need more education and support resources for those in this 24/7/365 role. Being recognized by WAM is deeply meaningful to me and reflects the importance of raising awareness about brain health and the caregiving journey," says Emma Heming Willis, author, frontotemporal dementia (FTD) and caregiver advocate, and co-founder of Make Time Wellness. A caregiver to husband Bruce Willis, she received the Caregiving Award for her outstanding work in advocating for unpaid family caregivers and is pictured here with Maria Shriver.



^ Keep Memory Alive Co-Founder and Vice-Chairwoman Camille Ruvo welcomes attendees at the WAM Forum



^ (L to R) Among the WAM Forum's nearly 300 attendees were City of Henderson Mayor Michelle Romero, City of North Las Vegas Mayor Pamela Goynes-Brown, Maria Shriver and City of Las Vegas Mayor Shelley Berkley.

You can help spread the word:  
**WAM Prevention and Research Center**



Dementia cases are predicted to double by 2060. Yet 45% of Alzheimer's disease cases may be preventable by making lifestyle changes, including diet and exercise.

If you know a woman aged 30-60 who would like a customized plan for reducing her risk for Alzheimer's disease, she can contact [clevelandclinic.org/wamay](https://clevelandclinic.org/wamay) or 833.966.3623.

## ELAINE WYNN:

### A Legacy of Giving Honors Impactful Women

Inspired by witnessing her mother Lee Pascal's battle with Parkinson's disease and by the impact Maria Shriver has made through fundraising and advocacy, Elaine Wynn became passionate about redefining preventative neurological care to benefit future generations.

In 2024, Wynn gave to the Women's Alzheimer's Movement (WAM) Prevention and Research Center at Cleveland Clinic.

Also in 2024, thanks to support from the Elaine P. Wynn & Family Foundation, The Lee Pascal Endowed Chair for Clinical Trials Research was awarded to Charles Bernick, MD, who joined Cleveland Clinic Lou Ruvo Center for Brain Health at its 2009 opening and has served as principal investigator for most of the center's studies of Alzheimer's disease and related dementias.

"Cleveland Clinic Lou Ruvo Center for Brain Health is an important resource for

the Las Vegas community and a world leader in brain health," Wynn shared in *New Thinking* magazine in 2015. "I'm pleased to be able to contribute to this outstanding organization."

Wynn died April 14, 2025, at age 82. The civic leader and philanthropist will be missed, and Wynn's impact on her community was recognized posthumously at the WAM Forum on May 19, 2025.

Marlowe Early accepted the 2025 Inaugural WAM Award for Leadership in Supporting Women's Health and Alzheimer's Prevention Research on Wynn's behalf. Early said her grandmother was motivated by "an intersection of curiosity, family legacy and faith" and wanted to "make a gift to her daughters, granddaughter and every woman who will benefit from more access, more information and better care."

✓ Elaine Wynn, right, at the 2024 Power of Love® gala with Tom Mihaljevic, MD, Cleveland Clinic CEO and President and Morton L. Mandel CEO Chair of Cleveland Clinic



^ Marlowe Early accepts the 2025 WAM Award on behalf of Elaine Wynn



**IN ANY GIVEN DAY, THERE ARE 1,440 MINUTES.  
THIS IS A TRUE STORY ABOUT ONE OF THEM.**



Las Vegas



Ohio | Florida | Toronto



London



Abu Dhabi

## 10:10 10.10: ANATOMY OF A MOMENT

On 10.10.24 at 10:10 a.m. EDT, Cleveland Clinic captured a single moment in time — across four countries, four time zones and three continents. Caregivers saved lives, researchers pursued breakthroughs and patients took steps toward healing.

The big moment was made up of many little moments — each remarkable in its own way. From sunrise in Las Vegas to sunset in Abu Dhabi, from a heart surgery to an art therapy session to a transplant team on rounds, take a deep dive with us into 60 seconds in the life of Cleveland Clinic.

### **ONE MINUTE. A WORLD OF IMPACT.**

This moment is a reflection of our global mission of care, research, and education — and of the people who make it possible.

You can help create meaningful moments at Cleveland Clinic.

Make a gift of time:  
**[clevelandclinic.org/nevadavolunteer](https://clevelandclinic.org/nevadavolunteer)**

Make a gift of financial support:  
**[give.ccf.org/ntat](https://give.ccf.org/ntat)**  
or **702.263.9797**

**+** Continue the story online:  
**[clevelandclinic.org/moment](https://clevelandclinic.org/moment)**



## FLOWERS FOREVER

The flowers presented daily to patients are made possible by a 2019 gift from the Lynne Ruffin-Smith Charitable Foundation, endowing Cleveland Clinic Lou Ruvo Center for Brain Health's flower program in perpetuity.

### Cleveland Clinic Lou Ruvo Center for Brain Health Las Vegas 7:10 a.m. Pacific Daylight Time

Daybreak in the desert brings a new delivery of flowers. Carnations, to be exact. They come in different colors. Today's batch is purple, as radiant as any of the neon on the nearby Las Vegas Strip.

John Mazur works the front desk. He opens the door for patients with early appointments. He summons the elevator for caregivers who are starting their shifts. And he tends to those beautiful blooms, trimming their stems and placing them in small vials of water to keep them fresh.

For John, the volunteer gig as a greeter is deeply rewarding. Having survived a stroke 20 years ago, he knows firsthand the challenges of an uphill patient journey. He has a family history of dementia, too.

Way back when, John was a television executive in Los Angeles. He got his start as a page on "The Tonight Show," giving tours of NBC Studios and pointing out Johnny Carson's parking space.

Nowadays, on any given morning at the Lou Ruvo Center for Brain Health, John might meet someone with Alzheimer's disease. Or someone with Parkinson's disease. Or someone with another degenerative neurological condition.

Whatever the case may be, he'll offer a flower to every patient. "It's a simple gesture," he says, "but it brings a lot of joy to a lot of people."

*Photograph by Denise Truscello*

## THE POWER OF LAUGHTER AND MUSIC, Made Possible by the Power of Love

Caregiving is one of the greatest acts of love, so it's fitting that the 2025 Power of Love® gala — an annual event that raises funds for educational, therapeutic and support programs for unpaid family caregivers — fell on February 22, the day after National Caregiver Day.

### THE POWER OF LAUGHTER

This year at the Power of Love, we celebrated the power of laughter by honoring comedian Jimmy Kimmel.

“There’s science behind humor. When it comes to laughter, research has shown it’s crucial to our physical and mental health, with some studies even suggesting laughter can help us to live longer,” says Lucille Carriere, PhD, Angie Ruvo Endowed Caregiving Chair. “And care partners tell me that finding humor lightens the burden of their grueling, 24/7 avocation of caregiving.”

In addition to helping reduce perceived burden, laughter can also decrease:

- Emotional eating
- Stress
- Muscle tension
- Depression

When we play pranks or tell jokes, we provoke laughter, which in turn releases “feel good” chemicals that help us stay healthy and bond with other people. There are several such feel-good chemicals in a comedy cocktail:

- **Oxytocin** is a bonding chemical that makes us feel close to other people and is released by our brain when we laugh at a joke or prank.

- **Dopamine** is a reward neurotransmitter whose release makes us feel good. As part of our body’s emotion regulation system, it provides positive reinforcement for taking the actions that help us survive. Laughing can trigger a rush of dopamine.
- **Endorphins** are natural pain-reduction neurotransmitters that can also help reduce stress and improve your mood and self-confidence.

Laughter also has several benefits for physical health. It can:

- Improve sleep quality.
- Lower blood pressure.
- Stimulate the heart.
- Increase oxygen to the brain.
- Increase endorphins.
- Improve our ability to fight infection.
- Help reduce pain.
- Activate good brain chemistry and enhance our immune function.
- Improve our overall well-being.

### THE POWER OF MUSIC

An evening of exclusive musical performances by some of the biggest names in the industry, the annual Power of Love gala has always spotlighted the power of music. This year, legendary band

Earth, Wind & Fire amplified the purpose behind the party, closing the evening with their chart-topping song “September,” a particularly poignant reminder of the power of music in neurological care with the opening line referring to the 21<sup>st</sup> day of September, which marks World Alzheimer’s Awareness Day.

“Our neurology providers view music therapy as a core non-pharmacological treatment option,” says Dylan Wint, MD, Director, Cleveland Clinic Nevada, who has made dozens of referrals to music therapy during his 15 years at the center.

Music therapist Julie Renato, MM, LPMT, MT-BC, isn’t surprised: “From the moment that I started looking into music therapy as a profession, I was really intrigued by how evidence-based music interventions can make changes in the brain and actually help people make functional improvements.”

In Parkinson’s disease and other movement disorders, this includes the use of rhythm for gait improvement and vocal exercises to improve speech. For example, Renato’s group, Sing out for Vocal Health – a Parkinson’s Choir, uses musical interventions to practice projecting voice in a healthy way.



In Alzheimer's and related dementias, music therapy targets specific behavior, helping participants engage in meaningful activity during the therapeutic session and later at home with a care partner. Renato says, "I'm looking for people to respond, to smile, to sing, to move, to play instruments however they can. To light their brain up as much as possible so we can maximize their potential and hopefully harness that throughout the day and carry it into the weeks and months to come."

In multiple sclerosis, music therapy helps to address cognitive, speech and movement challenges, as well as pain management via pleasurable distraction.

"I see the small victories, the change from the beginning to the end of the session. I see change in people from just overall engagement in my programs, to improvement in mood and quality of life, to increased understanding of how they can use music tools and tricks to improve day-to-day function," says Renato. "Just because the disease process is degenerative doesn't mean that there isn't any hope or opportunity for improvement in what matters most to an individual."

#### ✓ Music Therapy Group



## THE POWER OF LOVE FACILITATES LAUGHTER AND MUSIC YEAR ROUND

Thanks to generous donor support, Cleveland Clinic Lou Ruvo Center of Brain Health offers two types of music therapy at no cost to participants. No musical experience is required to benefit from these interactions.

- **Group therapy programs** (most are open to the entire community): Designed to support specific goal areas while building community and promoting social interaction.
- **One-on-one therapy sessions** (restricted to center patients): An initial assessment, followed by individualized sessions planned to meet specific needs.

View a full list of our free group music therapy programs online:  
[clevelandclinic.org/nvmusicprograms](https://clevelandclinic.org/nvmusicprograms)

Sign up to receive our monthly calendar of programs in your inbox:  
[clevelandclinic.org/nvnews](https://clevelandclinic.org/nvnews)



**Continue the story online:** Witness the power of music therapy in this uplifting video. [clevelandclinic.org/nvmusictherapy](https://clevelandclinic.org/nvmusictherapy)

## Powering Ongoing Clinical Achievements

Keep Memory Alive honored **Jimmy Kimmel** at the annual Power of Love® gala on Saturday, February 22, 2025, at MGM Grand Garden Arena. An esteemed lineup of entertainers came together to celebrate the Las Vegas native and host of “Jimmy Kimmel Live!” including **Anthony Anderson, Jason Bateman, Kristen Bell, Billy Crystal, Jeff Ross** and **Dax Shepard**.

Other notable guests in attendance included **Kenny “Babyface” Edmonds, Lisa Vanderpump, Ken Todd, Julie Chen Moonves, Gretchen Rossi, Slade Smiley, Shelley Hennig, Mark Davis, Steven Lagos** and **Maria Shriver**, founder of The Women’s Alzheimer’s Movement (WAM) Prevention and Research Center at Cleveland Clinic and chief visionary and strategic advisor of the Women’s Comprehensive Health and Research Center (see page 21).

Keep Memory Alive co-founders Camille and Larry Ruvo reflected on three decades of groundbreaking achievements at Cleveland Clinic Lou Ruvo Center for Brain Health, made possible in part by funds raised each year at the Power of Love. Larry highlighted the center’s evolution from its initial focus on Alzheimer’s to addressing a range of neurodegenerative diseases, earning recognition as one of just 52 Parkinson’s Centers of Excellence worldwide and its designation as a National Multiple

Sclerosis Society Center for Comprehensive MS Care. He closed with a powerful statement: “We are changing the world, not just Nevada.”

**Judge Judy Sheindlin** presented Top Rank, Inc. founders **Lovee and Bob Arum** with the Community Leadership Award for their extraordinary philanthropic commitment to Cleveland Clinic and its Professional Athletes Brain Health Study, as well as numerous other nonprofit organizations.

Kimmel also spoke about his personal connection to the Lou Ruvo Center for Brain Health’s work, sharing how family members had benefited from its expertise. “They are doing amazing things that this city can be very proud of,” he said.

Kimmel then took the mic to sing a rendition of Neil Diamond’s “Heartlight” with Cleto and the Cletones before **Earth, Wind & Fire** kept the celebration going with electrifying performances of hits “Let’s Groove” and “Boogie Wonderland” and a rousing finale of “September.”

The evening’s gourmet dinner was prepared by **Chefs Wolfgang Puck** and **Thomas Keller** and paired with wines from Southern Glazer’s Wine, Spirits & Beer of Nevada, followed by a dazzling dessert display from the MGM Grand pastry team.



^ Jimmy Kimmel and Jeff Ross



^ Dax Shepard and Kristen Bell



^ Earth, Wind & Fire



^ Billy Crystal



# POWER OF LOVE



^ Honorees Lovee and Bob Arum



^ (L to R) Camille Ruvo, Larry Ruvo, Jason Bateman, Maria Shriver and Amanda Anka

## (CAR)<sup>2</sup>-BONADI

As TMZ reported, “Sylvester Stallone’s not just the ‘Tulsa King’ ... he’s the king of giving too — ‘cause an experience with Sly and a luxury sportscar donated by a local dealer made a heavyweight stack of cash for a great cause.”

This coveted 2025 Power of Love auction package was billed as a 2024 Lotus Emira, a meet-and-greet with Stallone on the set of Tulsa King and a signed case of the actor’s vodka, Carbonadi, a collaboration with chef Mario Carbone. It turned into a bidding war between two guests. So, Vegas Auto Gallery’s Nick Dossa,

who donated the first car, created two winners by procuring a second Lotus.

“Since Lotus’ are extremely hard to get right now, we knew this would be an in-demand car for the auction to raise the most money possible and be able to give back to the community. And with the legend Sylvester Stallone’s affiliation, of course it brought this auction to another level of greatness,” Dossa told TMZ.

Larry Ruvo says, “Stallone was all in to double his donations, telling me, ‘You’re honoring Bob? No one has done more for boxing than Bob Arum.’”



^ 2024 Lotus Emira



## REMEMBERING SAM MOORE

(1935-2025)

Recruited by Sammy Hagar to join the 2023 Sammy Hagar and friends-themed Power of Love gala, Sam Moore, the Grammy Award-winning R&B icon, performed John Lennon’s “Imagine.”

Larry Ruvo remembers the moment: “Sam Moore told me, ‘I believe what we did tonight is going to change the world. Just imagine...’” Ruvo reached out to shake his hand and Moore replied, “I don’t want to shake your hand. I want a hug.”

Moore, 89, died January 10, 2025.

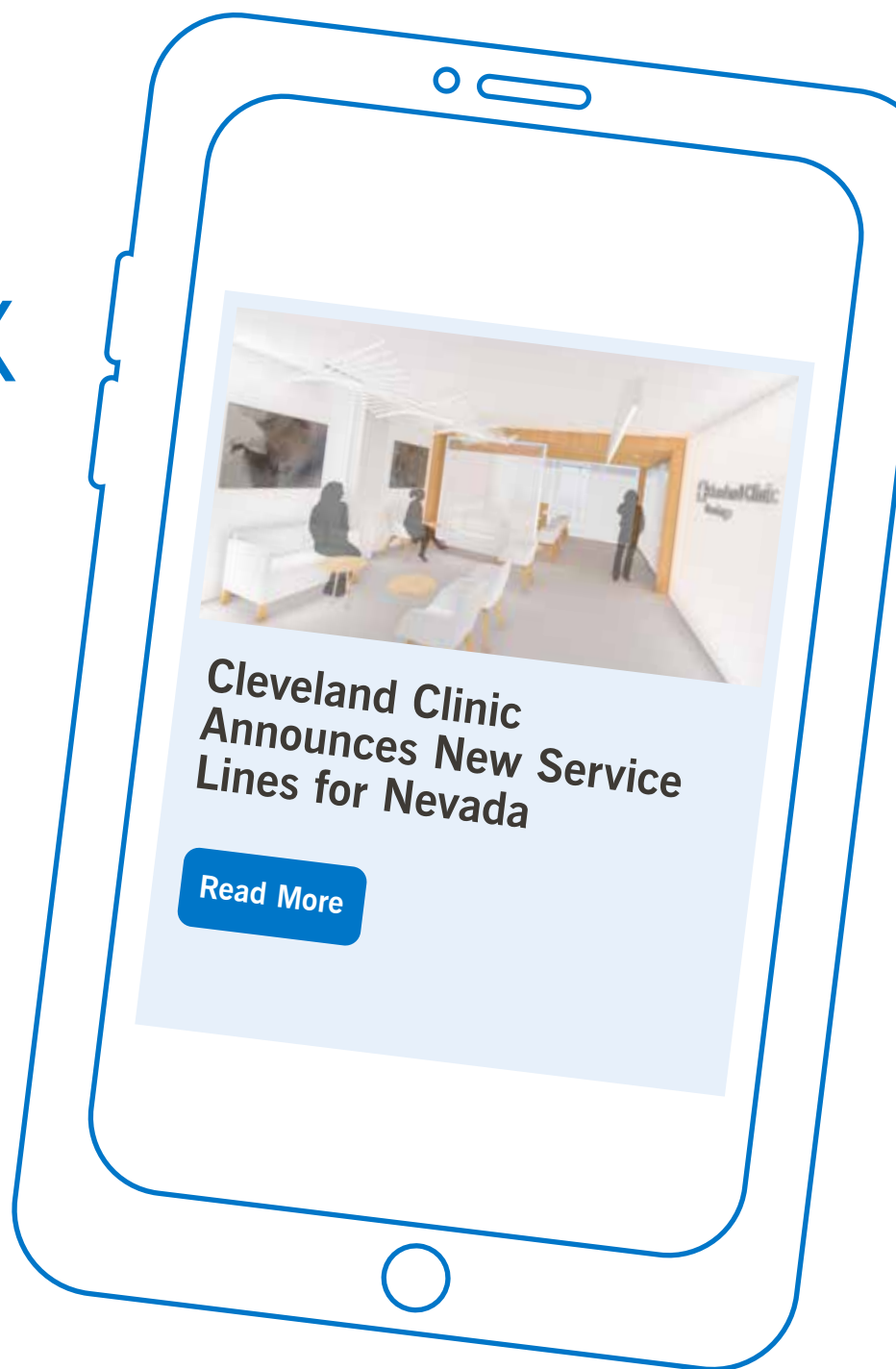
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PRESENTS

# SUMMER 2025 FESTIVAL

Shakespeare Ranch | Glenbrook, Nevada

**Saturday, August 9**



## RODEO

Doors Open | 3:00 PM

Bulls, Bucks, Barrels & BBQ  
Live Music & Dancing ★ Kids' Activities  
Refreshing Summertime Beverages  
Silent & Live Auction

**\$2,500**

ADULT

**\$250**

CHILD  
(17 & Under)

**\$25,000** TABLE OF 10

Children 4 & Under are FREE with a ticketed adult

**Sunday, August 10**

## CARS, CUISINE, & COOL JAMS

Car Experience | 5:00 PM - 6:30 PM


Dinner, Reception & Entertainment | 6:30 PM

Join us and explore a curated collection of rare and luxury cars.  
Enjoy a multi-course menu by **Celebrity Chefs & TV Personalities**

**Antonia Lofaso and Scott Conant**

Craft cocktails, fine wines, and A-List entertainment - to be announced.

Brought to you by *Dom Pérignon*

Hosted By: 

Camille & Larry Ruvo | Kristen & Porter Felton  
National Automobile Museum

**\$3,500**

ADULT

**\$35,000**

TABLE OF 10

Must Be 21+ to Attend



Get the latest details and see the full  
event lineup, including entertainment:

702.263.9797

[keepmemoryalive.org/summerfest](http://keepmemoryalive.org/summerfest)

## THANK YOU TO OUR SPONSORS\*

\*At the time of printing



Raising funds to provide education, treatment, research, and support services to help patients and families throughout Nevada navigate the challenges and maximize quality of life while living with brain diseases



# Host An Event to Remember so That Others Will Never Forget

Create unforgettable moments at the iconic Keep Memory Alive Event Center, an architectural masterpiece by world-renowned architect Frank Gehry. Ideal for corporate gatherings, galas or social celebrations, this extraordinary venue in Las Vegas is designed for those with a taste for the exquisite.

More than just a striking space, every event supports Cleveland Clinic Lou Ruvo Center for Brain Health's novel work in education, research and treatment.



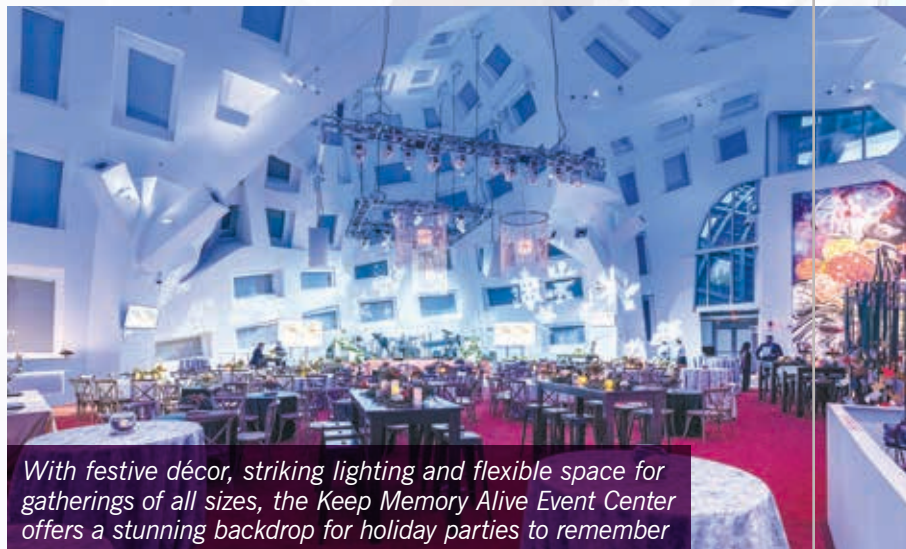
*At an Indian wedding, tradition meets modern elegance*



*Colorful décor, glowing lights and the Las Vegas skyline set the scene for a wedding reception in the garden*



*Custom décor adds a whimsical touch to an unforgettable event*



*With festive décor, striking lighting and flexible space for gatherings of all sizes, the Keep Memory Alive Event Center offers a stunning backdrop for holiday parties to remember*





# POWER OF LOVE GALA

## SAVE THE DATE

Saturday, February 14, 2026  
MGM GRAND GARDEN ARENA

Join us in Las Vegas for an annual evening of superstar entertainment, celebrity chefs, fine wine and tantalizing cocktails as we celebrate the Power of Love® and raise funds for Cleveland Clinic Lou Ruvo Center for Brain Health.

Information at:  
**702.263.9797 or**  
**[poweroflove@ccf.org](mailto:poweroflove@ccf.org)**

## LAGOS KEEP MEMORY ALIVE COLLECTION

100% of every dollar spent with the LAGOS Keep Memory Alive collection benefits Cleveland Clinic Lou Ruvo Center for Brain Health.



**[lagos.com/keepmemoryalive](https://lagos.com/keepmemoryalive)**



# Recognized for Excellence

In recent months, Cleveland Clinic Lou Ruvo Center for Brain Health staff have been honored by their community, peers and professional associations for clinical excellence and leadership in the field.

We celebrate these accomplishments.

Top Doctors

(Castle Connolly, 2025)

- Charles Bernick, MD
- Le Hua, MD, FAAN
- Zoltan Mari, MD, FAAN
- Dylan Wint, MD, FAAN —  
also recognized among  
Castle Connolly Top Black Doctors

Invited Member, Public Education and  
Communication Committee

(Society for Neuroscience, April 2025)

Andrew R. Bender, PhD



Doctorate in Interdisciplinary  
Neuroscience and  
Outstanding Graduate  
(Recognized by the president of  
University of Nevada Las Vegas,  
December 2024)

Xiaowei Zhuang, PhD



Doctorate in  
Interdisciplinary Neuroscience  
(University of Nevada Las Vegas,  
December 2024)

Zhengshi Yang, PhD

Board Certification, Behavioral Neurology  
& Neuropsychiatry  
(United Council for Neurologic Subspecialties,  
November 2024)

Lakeshia Gibson, MD

Board Certification, Geriatric Psychiatry  
(American Board of Psychiatry and Neurology,  
October 2024)

Barinder Singh, MD



Carrie M. Hersh, DO, MSc, FAAN

Member, Wellness Subcommittee  
(American Academy of Neurology,  
January 2025)

President-Elect (Consortium of Multiple  
Sclerosis Centers, 2025-2026)

Grant Award for health and wellness  
symposium for individuals newly  
diagnosed with MS and other  
neuroimmunological disorders  
(Paralyzed Veterans of America  
Education Grant, April 2025)



MacKenzie Ruta, APR

Pinnacle Awards (Las Vegas Valley  
Chapter, Public Relations Society  
of America, January 2025)

Integrated Communications category:  
2024 Multiple Sclerosis  
Awareness Campaign

Media Relations category: 2024 Power  
of Love® Mother's Day Media Strategy



Maileen Ulep, PhD, MSN,  
APRN, FNP-BC

Invited Member, Early-Career Project  
Evaluation Committee (Alzheimer's  
Clinical Trials Consortium, April 2025)

Invited Member, Scientific Committee  
(Clinical Trials on Alzheimer's Disease,  
2025)



Erin Wilkinson, MSN, APRN,  
FNP-BC, MSCN

The International Organization of Multiple  
Sclerosis Nurses (IOMSN) engages  
knowledgeable, experienced members who  
work in MS care across the country to  
assist their peers in accessing information  
to enhance their respective nursing  
practices. Erin Wilkinson has been  
selected to serve in two leadership roles.

Co-Chair, Education Committee  
(IOMSN) 2025)

West Regional Co-Liaison  
(IOMSN, 2025)



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