

preserving your memory

Winter 2019

Sandra Day O'Connor

The retired Supreme Court Justice
announces her diagnosis

Resolving
FAMILY DISPUTES
About Caregiving

KENT KAROSEN:
1965-2018

We look back at the
Fisher Center Foundation's leader
and his amazing legacy



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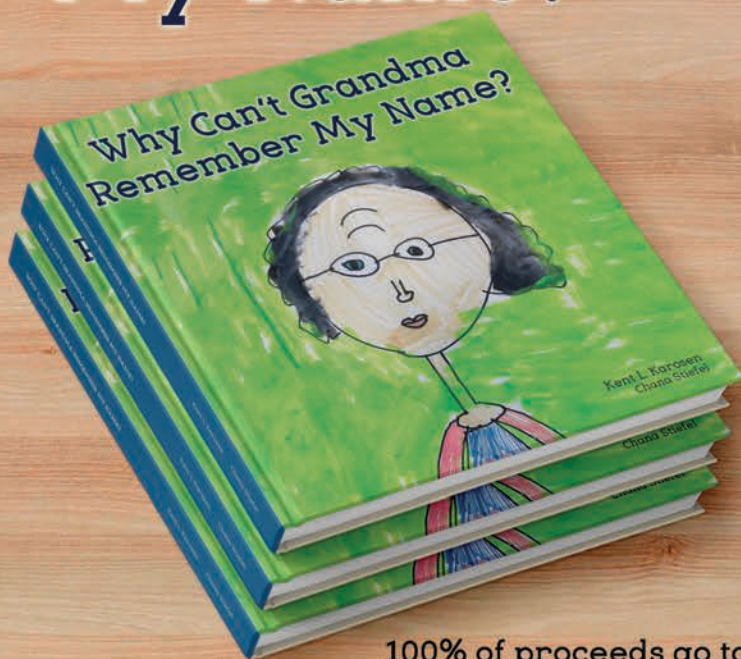
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Former Supreme Court Associate Justice
Sandra Day O'Connor participates in a Senate Special
Aging hearing about Alzheimer's on Capitol Hill,
March 25, 2009 in Washington, DC.

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A Time of Reflection, Gratitude and Self Care!



Lucretia Holden

Warm greetings to you and the ones you love. I will be addressing you going forward as we lost our President and CEO, Kent L. Karosen, on December 6, 2018. He served us well. Read more about his impactful life of service and why we will miss him on page 8.

In addition to losing Kent, I personally lost several highly regarded elder family members—one to Alzheimer's. As I patiently heal through the grieving process, it helps to not focus on the disappointments and regrets, but instead focus on the experiences, blessings and presents we received last year and have yet to ascertain this year.

Speaking of presents, it is my honor to thank you for your continued generous support of our mission to understand the **causes** of Alzheimer's disease, improve the **care** of people living with it to enhance their quality of life and find a **cure!** More than 5.7 million people live with Alzheimer's in the United States. Your continued support ensures that our researchers and internationally renowned scientists can continue working to find a cure. Read about Professor Michal Schwartz, whose laboratory was the first to propose that the brain needs the immune system for its maintenance and repair, on page 14.

Reflect with us on the amazing career of Supreme Court Justice Sandra Day O'Connor, who is our cover story. Last year, Justice O'Connor announced that she was retiring from public life because of a diagnosis of dementia, probably Alzheimer's disease. Justice O'Connor lost her husband to Alzheimer's as well. Read more about her story on page 18.

Do you know the difference between dementia and Alzheimer's? Have you started planning for advance care? Do you know when it is time to hang up those car keys? You can find the answers to these questions and more inside this issue, and while you're reading, take a moment to think about people you know who could benefit from our publication and sign them up for a subscription as a gratitude gift.

Join us in reflecting on gratitude—think of all the things you are grateful for. It can be as complex as people or as simple as the ability to read this edition of *Preserving Your Memory* magazine. Finally, if you could have one wish come true during 2019, what would it be? Mine would be to truly practice self-care unapologetically.

We hope you'll do the same.

Sincerely yours,

Lucretia Holden, SHRM-CP
Senior Vice President

Please send your tips, stories or questions to:

Fisher Center for Alzheimer's Research Foundation
110 East 42nd Street, 16th Floor
New York, NY 10017

or by e-mail to info@ALZinfo.org

Together we can end Alzheimer's!

About the Fisher Center for Alzheimer's Research Foundation

Since 1995, the Fisher Center Foundation, a 501(c)(3) nonprofit organization, has been providing hope and help to the public by funding research into the cause, care, and cure of Alzheimer's disease and creating much needed educational programs. We are one of the world's largest research teams leading the battle against Alzheimer's disease. Our team of internationally renowned scientists, under the direction of Nobel laureate Dr. Paul Greengard, has been at the forefront of research that has provided a conceptual framework for modern-day investigations into Alzheimer's disease. The Fisher Center Foundation has earned Charity Navigator's highest 4-Star rating seven years in a row for fiscal management and commitment to accountability and transparency. For more information or to make a donation, go to ALZinfo.org.

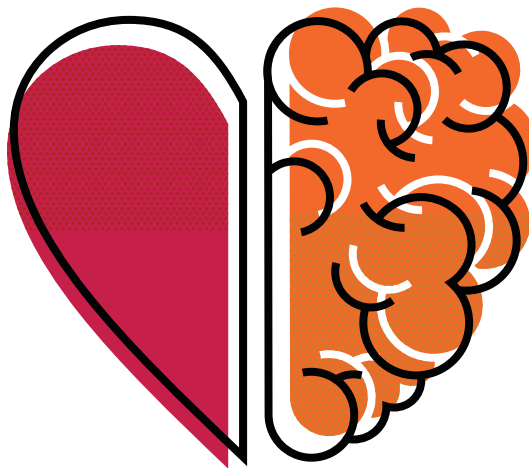
The LATEST NEWS on Alzheimer's Disease and Brain Health

Healthier Heart, Healthier Brain

Older women and men who had the highest levels of heart health were at less risk of developing dementia than those who were less heart healthy, according to a new analysis. The results, from a study of more than 6,600 French women and men, most in their 70s, underscore that what's good for the heart is good for the brain.

The study, published in *JAMA*, cited seven measures from the American Heart Association that are tied to good heart health. All have been tied in studies to a lower risk of Alzheimer's disease and other forms of dementia later in life. Each measure achieved reduced the risk of developing dementia by about 10 percent. The seven measures are:

- 1. Manage blood pressure.** Keep blood pressure at 120/80 or below to minimize strain on the heart and kidneys and lower the risk of heart attack and stroke.
- 2. Control cholesterol.** Strive for a total cholesterol level below 200.
- 3. Reduce blood sugar.** Strive for a fasting glucose level below 100 milligrams per deciliter of blood.
- 4. Get active.** Regular physical activity is good for the entire body, including the brain.
- 5. Eat better.** Eat fish twice a week or more, and fruits and vegetables at least three times a day.
- 6. Lose weight.** A body mass index of 18 to 25 is considered healthy.
- 7. Stop smoking.** Not smoking is one of the best things you can do.



Stress May Affect Memory and Brain Size

Women and men who had high blood levels of cortisol, the so-called stress hormone, performed worse on tests of memory than those with normal cortisol levels. They also had smaller brain volumes, which has been linked to an increased risk of dementia later in life.

For the study, published in *Neurology*, researchers looked at 2,231 women and men, most in their 40s or 50s. All were part of a larger study and free of dementia. Participants were given tests of memory and thinking skills at the start of the study, and again eight years later.

Doctors found that those with the highest cortisol levels, a sign of stress, had lower scores on tests of memory and thinking skills than those with normal levels of cortisol. They also had slightly smaller brain volumes.



"It's important for people to find ways to reduce stress, such as getting enough sleep, engaging in moderate exercise and incorporating relaxation techniques into their daily lives," the authors concluded.



Pain Drug Hazards

A new study found people with Alzheimer's disease were especially likely to suffer from harmful side effects from commonly prescribed opioid pain medications. Alzheimer's patients may be particularly sensitive to the drugs and may get effective pain relief from lower, and safer, doses.

The study looked at 162 Norwegian women and men with dementia who were living in nursing homes. They found that among patients with advanced dementia, opioid pain relievers were three times more likely to cause such side effects as personality changes, confusion and sedation than gentler pain relievers like Tylenol. Such side effects can impair a person's ability to carry out daily activities and lead to potentially harmful, even fatal, falls.

While strong pain relievers like opioids are often necessary to treat serious pain, the authors note that doctors who are prescribing them to people with dementia take special care in providing the lowest effective dose in order to help prevent unnecessary harm.



New Drug Shows Promise for Alzheimer's

A new drug showed promise in both reducing the plaques that build up in the brains of those with Alzheimer's disease and in slowing the progression of memory loss and other symptoms.

The drug is only in mid-stage testing and further research in larger numbers of people is needed to confirm the findings. But it does suggest that new and more effective treatments may be on the horizon for a disease that affects more than 5 million Americans and more than 40 million worldwide.

The findings are important because current drugs for Alzheimer's disease may ease symptoms for a few months but do nothing to stop the relentless downward progression of disease.

The experimental drug, called BAN2401 and made by the drug companies Biogen and Eisai, is given as an injection every two weeks. It is not yet available to consumers, pending more extensive testing. More results are expected later this year.

Other new drugs are also undergoing testing, but none have yet been proven to slow the progression of Alzheimer's. Scientists still don't understand why Alzheimer's occurs, and basic research into the underlying causes is needed so that effective new treatments can be developed.

The last time the Food and Drug Administration approved a drug for Alzheimer's was in 2014, and that was for a drug that combined two existing drugs. Before then, the last time a new drug came on the market was in 2003. However, none of the drugs currently approved for Alzheimer's slow progression of the disease.



For more information:

Visit **ALZinfo.org** often for up-to-date and expert-reviewed scientific news.

Kent L. Karosen, President and CEO, Fisher Center for Alzheimer's Research Foundation: 1965-2018

It is with unfathomable sadness that the Fisher Center for Alzheimer's Research Foundation mourns the peaceful passing of our 53-year-old stalwart leader, Kent L. Karosen. Kent passed away on December 6, 2018, at Mount Sinai Medical Center in Miami Beach, Florida.

He served us well since 2009, as President and CEO of the Fisher Center Foundation, which supports the research of Nobel laureate Dr. Paul Greengard and his team of more than 50 scientists at the Fisher Center lab at The Rockefeller University, the world-renowned center in New York City, where Kent also served as a member of The Rockefeller University Council since 2012. During his tenure as the Foundation's leader, Kent spearheaded the Fisher Center Foundation's growth and served as a vital partner to the research of Dr. Greengard and his team.

Dr. Greengard's laboratory made a series of key research breakthroughs, thanks in part to Kent's commitment and devotion to the Foundation's founder, Zachary Fisher, in raising awareness and funds for the lab's quest to learn the causes, and ultimately find better treatments and a cure for Alzheimer's.

Born in Kansas City, Kent went on to graduate from Kenyon College with a B.A. in History. He joined Cantor Fitzgerald, LP, in 1991, and worked his way up to finally become Partner and Managing Director.

In May of 2001, Kent was named an Honorary Commodore in the United States Coast Guard Auxiliary for the 1st Southern Region. Just four months later, the September 11th attacks on the World Trade Center decimated Cantor Fitzgerald's headquarters, killing 658 of their employees. In the immediate aftermath of that tragedy, Kent channeled his distress by organizing and managing the Crisis Center, which provided aid to the families of the victims. He continued to organize Cantor's annual memorial service in honor of his fallen colleagues.

Kent vigorously served on numerous boards, including those of the Times Square Alliance, the NYC Fund for Public Advocacy, the Midwest Chapter of the Leukemia Society, the US Coast Guard Foundation, the Wilbraham Monson Academy and later the Intrepid Foundation.

In 2008, Kent married the love of his life, Brian Hauserman, in Provincetown, Massachusetts; they later celebrated a religious ceremony in New York City.



Kent L. Karosen

Together, Kent and Brian managed Karosen Strategic Partners, LLC, and moved to Miami Beach, where Kent became a devoted member of the Temple Emanu-El Synagogue Board. Kent had a big heart and an enormous passion for raising awareness and money for worthy causes. He was an old soul whose larger-than-life ideas, feisty spirit, hearty laugh and quick-witted sense of humor left an unforgettable impression on those who interacted with him.

Surviving Kent are husband Brian; sister Valerie K. Gaines; two puppies, Mazel and Tova; and many dear friends, colleagues and employees, all of whom Kent loved like family.

Tributes may be sent to the Fisher Center for Alzheimer's Research Foundation, 110 East 42nd Street, 16th Floor, New York, NY 10017 or to the Temple Emanu-El, 1701 Washington Avenue, Miami Beach, FL 33139. ●

Lost and Found—

Positive Ways to Ease Caregiver Loneliness

The news has a lot of people talking. Dan Gasby, husband of lifestyle icon and current Alzheimer's patient B. Smith, has a girlfriend.

For those not familiar with the story, when B. Smith was diagnosed with Alzheimer's six years ago, she and Dan made a pact. They would share their journey openly to raise awareness of this devastating disease. Eventually, as Dan watched B. slip away, it became his job alone.

Agree or not with Dan's choice, parts of this story likely feels familiar. Providing care for a spouse, or any loved one with Alzheimer's, can be a lonely job. As connections once enjoyed with the patient fade, other relationships often suffer as well from a lack of time and attention. Many caregivers, however, are reluctant to make their own social needs a priority.

That's a narrative that needs to change. Studies have found that caregivers under constant stress are more likely to have health issues of their own, including illness and depression. The loss of important social connections is a risk factor, and avoiding isolation is crucial.

To do so, there are positive steps all caregivers should take:

Acknowledge Your Needs

It's okay to feel lonely, angry, scared and other uncomfortable things. It's also okay to want to be happy. Maintaining supportive relationships outside of your caregiving duties gives you someone to share your feelings with, good and bad. And that can bring stress levels down.

Find Respite

Respite programs, which provide temporary relief—and free time—for caregivers, can be found through many senior centers, home health agencies, assisted-living facilities and nursing homes. No guilt needed: Your loved one will be well cared for while you care for yourself. If a program is not available near you, ask others for help.

Do Something—With Friends

Make it a priority to spend time in the company of others:

- Join a support group (in-person or online) to talk about daily challenges.
- Sign up for a club, team or class to meet others who share your interests.
- Make plans with someone who makes you laugh. You need it!
- If you can't get out, invite a friend to visit. Your loved one may enjoy the change of pace, too. ●



To learn more about support resources for caregivers, visit ALZinfo.org. You can also share your thoughts on this story, or anything else, on the message board at ALZinfo.org/ALZtalk.



Is It Dementia or Alzheimer's Disease?

You might hear your loved one say, "I can't remember where I put my keys." Or they might say, "It's right on the tip of my tongue." Statements like these are common, especially as a person gets older. But, being forgetful or not remembering a word or two does not mean your loved one has dementia or Alzheimer's disease. The problem comes when these changes interfere with your loved one's ability to do their usual everyday activities. But, is the problem dementia? Or is it Alzheimer's disease? Often people think that dementia and Alzheimer's disease are one and the same. Although they are similar, they are not the same.

Dementia is not a disease. It is a group of symptoms that have to do with changes in thinking and behavior. These changes affect a person's ability to do their usual tasks. Things like cooking, going shopping, caring for themselves, and paying bills can become a problem. With dementia, the nerve cells in the brain stop working properly. The cells don't talk to one another as they should. And as a result, the cells die. Normally, as a person gets older, some nerve cells die. But, with dementia, more nerve cells die than normally would. That explains why in most cases, the changes in thinking and behavior get worse over time.



You're probably thinking, isn't this Alzheimer's disease? Well, not quite. Dementia can be caused by many different things. A decrease in blood supply to the brain from a stroke, head injury, tumor, or abnormal protein in the brain can cause dementia. But the most common cause of dementia is Alzheimer's disease.

What Is Alzheimer's disease?

Alzheimer's disease is one type of dementia. In fact, it is the most common type. Like dementia, the disease is progressive. This means that the symptoms get worse over time.

But how do you know if your loved one has Alzheimer's disease? Usually, people think it involves problems with memory. Yes, memory loss is the most common symptom. In fact, it is often the first sign. But here's the difference. Everyone forgets things once in a while, but then, later on, the person remembers it. For the person with Alzheimer's disease, they don't remember what they forgot. For example, they may cook something but then forget to eat it. The memory loss of Alzheimer's disease affects recently learned information and interferes with everyday life. For example, your loved one might forget important dates or events. Or you may notice them asking about the same thing over and over and they don't know that they've asked the question before.

Your loved one may have other symptoms, too. These depend on the area of the brain affected. Other symptoms may include problems with:

- Understanding things around them.
- Doing familiar tasks, such as getting dressed.
- Losing things or putting them in odd places. For example, your loved one might put their coat in the refrigerator.
- Making decisions and planning.
- Thinking. Your loved one may have problems with understanding numbers and what to do with them. Or they might have trouble following directions, especially when there are several steps.
- Speaking. Your loved one might have problems getting words out or using the right words.
- Wandering and getting lost.
- Having sudden changes in behavior, mood or personality. Your loved one may become upset, suspicious, fearful, angry, anxious or tearful for no obvious reason.

It might be hard to tell if your loved one has Alzheimer's disease. In the early stages, they can go about their daily lives doing the things they normally do. They can take care of themselves. They can work, drive and take care of their home and money matters. But as the condition continues, these symptoms get worse and your loved one will need more supervision and care.

Alzheimer's disease, like dementia, has no cure. The goal is to keep your loved one as independent as possible for as long as possible. Certain medicines can help slow the symptoms. And mental exercises and games, such as crossword puzzles and brain teasers, can help keep those brain cells working for as long as possible. ●

Is It Time to Call the Doctor?

Is your loved one forgetting more? Are they wandering and getting lost? Does your loved one wear the same clothes every day? When talking with your loved one, do they become overly upset or angry for no reason? Should you call the doctor?

The answer is, yes. It's possible what you're seeing might be a physical problem, such as a side effect of a medicine or an infection. This type of problem can be corrected. But, it might also mean that your loved one's condition is getting worse and you need to act.

Be on the lookout for these warning signs. And if you see any, call the doctor:

- Sudden mood changes or outbursts
- Difficulty handling money, directions or their own care
- Poor judgment or decision making
- Difficulty reading or judging color
- Problems with speaking, such as calling something by the wrong name
- Withdrawal from usual activities

Remember, even if you're not sure, make the call.



Handling Family Conflicts Over Caregiving

By Margie Rossi-Holman

Taking care of a loved one with Alzheimer's disease or dementia is not an easy task. With the amount of medical, financial and emotionally sensitive decisions that need to be made, it can be a complicated process. Having adult family members around to help can make the situation even more complicated. Even though they can be very helpful and offer much-needed support, the added family dynamics can cause stress and will often cause rifts between loved ones. Facing the reality that a parent with Alzheimer's or dementia needs care can be an emotionally overwhelming process, and how each individual's unique personality deals with that often adds stress to the situation.

Each person has a different relationship in the family and with the parent, and this often affects what role they think they should have in caregiving. Often, the eldest child feels the caregiving responsibility falls on them. Sometimes the child who sees themselves as the "good" child or the most loved will take the responsibility. Siblings who feel like a disappointment to the parent may feel less inclined to take on caregiving responsibilities. The stress of caregiving can also bring back old sibling rivalries and feuds.

Communication Is the Key

No matter how caregiving duties are assigned, communication is vital to the well-being of the loved one and the health of caregivers. Below are a few tips to start a healthy conversation:

- Open up the lines of communication with every family member, even those you don't always get along with. Let them decide how much they want to be involved.
- Have a family meeting to get everyone's viewpoint on elder care needs. What you are seeing may not be what others see. What you think is critical may not be and vice versa. Having other viewpoints can be helpful. At the end of the meeting, review



what was discussed and decide on next steps, if there are any.

- When it comes to family caregiving, someone in the family always shoulders a heavier share of the load. Life is like that. Should it be that way? No. But wishing for something different may only make matters worse.
- It really doesn't matter what you believe your siblings should do. What does matter is getting the help your loved one needs, whether it's from your siblings or outside the family. Remember, it's all about managing the care of a loved one with Alzheimer's or dementia.
- List all of the support your loved one may need. Be specific: fixing meals, bathing, managing the checkbook, grocery shopping, picking up medications.
- Identify and contact help available in the community. You'll need it. It may take a lot of phone calls to find the resources you need.

- Accept whatever help each sibling is able and willing to provide. No one knows how another person thinks or feels or what's going on in their life.
- Your attitude makes all the difference. Sure, it's hard not to be mad when no one else helps. Focus attention on the positives. Be thankful for those who help if and when they do. Beyond that pay no attention to those who under-serve.
- Use outside sources to defuse persistent emotional land mines. Consider turning to a professional elder-care mediator. They offer a respectful solution to family conflicts over the care of an aging parent. That can provide a pathway to peace and family healing.

The bottom line here is to focus only on what you can accomplish for your loved one. Resenting siblings for not chipping in makes you feel worse and accomplishes nothing. Accept the help you get. Do what you know you can do and find outside help for the rest.

It's important to remember that the healthiest and least-conflicted families are ones in which the parent's wishes are known. When it comes to caregiving, siblings should focus on the facts and have a clear understanding of what the parent's needs are. With open and honest communication, siblings can eliminate stress and provide better help for each other and for their loved ones.

When it comes to sharing the responsibilities of caregiving, there's no one solution that works for everyone. Every family is different, so every family should work together to find the best arrangement for them. ●



Israeli Researcher Identifies Critical Brain Link to Immune System

Much of the research into Alzheimer's disease treatments has focused on stopping and hopefully even reversing the destructive work of beta-amyloid proteins on the brain's cells. Prof. Michal Schwartz and her research group at the Weizmann Institute of Science in Rehovot, Israel, have taken a different approach, which has emerged from her study of more than 20 years looking at the relationship between the immune system and the brain's health and disease.

"My laboratory was first to demonstrate that the brain needs cells of the immune system for its maintenance and repair," explains Prof. Schwartz. Through this work, her team discovered how the brain-immune system communication is operating in a healthy person, and that in Alzheimer's disease as well as in other neurodegenerative conditions, how this communication dysfunctions.

Her studies led her team to suggest that manipulating the immune system could be a way of harnessing the benefit to the central nervous system (CNS) when it responds to acute injuries, chronic neurodegenerative conditions, mental dysfunction and brain aging. Her team is currently seeking to understand the entire immunological cascade that starts by manipulating the immune system, and converges into disease modification within the brain, which leads to cognitive improvement in animal models of Alzheimer's disease.

Her work is now under expedited process of development to hasten its arrival to patients. "This is what we're currently doing, developing a way to boost the immune system as a way of modifying Alzheimer's disease and dementia," Prof. Schwartz says. Prof. Schwartz's team is further exploring how the immune system's aging affects brain aging, and whether and how the diseased brain leads to the immune system's exhaustion.

Calling her work a breakthrough in our understanding of Alzheimer's disease would be an understatement. Prof. Michal Schwartz and her team have transformed the way we understand the processes that influence Alzheimer's disease, and may lead to better treatments as a result.



Photo: Weizmann Institute of Science

Prof. Michal Schwartz

**"My laboratory was first to demonstrate that the brain needs cells of the immune system for its maintenance and repair. This is what we're currently doing, developing a way to boost the immune system as a way of modifying Alzheimer's disease and dementia."
— Prof. Michal Schwartz**

The Weizmann Institute was awarded a grant by the Fisher Center for Alzheimer's Research Foundation to help further Prof. Schwartz's research. ●



For more information on how you can support breakthrough research, visit the Fisher Center's website at ALZinfo.org.



When It's Time to Hang up the Keys

Talking to a person with Alzheimer's disease about the need to stop driving is one of the most difficult discussions you may ever face. Alzheimer's tends to progress slowly. Early on, your loved one begins to lose skills and judgment, but might still have adequate driving skills.

But as the disease progresses, driving is impaired by poor judgment, memory loss, problems with reasoning and problem solving, and fatigue (the person may fall asleep). When these factors develop, taking the wheel makes a driver truly a danger to society and him- or herself. The tips below may be helpful to you when it's time to talk to a family member about driving and Alzheimer's disease.

- **Be empathetic.** Imagine how you would feel if you were in your loved one's place. It helps to involve other family members in the discussion to help, but not to confront.
- **Keep the conversation non-judgmental,** honest and between "adults," not "child and parent." Say things like, "We're concerned," "We care" or "We don't want you to get hurt or to hurt others." Once you've both come to an agreement, you can continue to support your loved one in ways beyond just offering rides.
- **Don't become the bad guy.** Encourage the person to quit driving because it is the doctor's order or the wishes of the family as a whole. You can also hire an expert to give an independent driving evaluation and agree to follow his or her advice. Driving and the decision to take away driving privileges don't have to be contentious for families. Physicians and

driving assessment centers can play a key role on taking pressure off family members.

- **Discuss alternatives** like transportation services, a taxi or rides from another family member. Your loved one may worry about losing his or her independence and being cut off from friends and activities.

When a person becomes quite confused or disabled, drastic steps may be required, such as hiding the keys, disabling the vehicle, or removing the vehicle altogether. Remember, having these conversations will be difficult on both you and your loved one, so approach each situation with empathy and, if need be, enlist help from your loved one's medical professional. ●



For additional caregiver support, visit our caregiver page at [ALZinfo.org/treatment-care/](https://www.alzinfo.org/treatment-care/).



Art *as an Act* of Memory

By Carrie Knowles

Memory is a rather magical human trait. It allows us to share what we experience and make connections with the world and the people we care about. It is the thread that binds us to one another. Through memory we learn to love, to trust and to care about each other.

One of the things I learned from living through my mother's decline with Alzheimer's disease is that memory is a fundamental part of the everyday of our lives. We need to remember.

CAREGIVER'S CORNER



If we don't remember the answers to the questions, we fail the test. If we can't remember the way home, we get lost. If we don't remember to take the dinner out of the oven, it will be ruined. If we don't remember the faces of the ones we love and who love us, we become estranged from our lives and the lives of others. We are disconnected and all alone.

One of the more far-flung theories being tossed about regarding the reason our parents and grandparents are experiencing Alzheimer's in such alarming numbers is that they saw so many terrible things happen during World War II, the concentration camps, Pearl Harbor and the dropping of the atomic bomb, not to mention the horror of the war itself, that they developed the disease in order to forget.

With Vietnam, two Gulf Wars, 9/11, too many senseless school shootings and every other tragedy we've witnessed in recent years, are we doomed to have Alzheimer's? Destined to forget?

Artists and writers have always served as scribes for humanity. They put down in lines and colors, words and songs, those things they see and feel. When we write a story, draw a picture, play music, sing a song, dance, or throw a pot, we engage in an act of memory.

We want to remember. We need to remember. Memories make us happy. They can also make us sad. But whether happy or sad, memories connect us. That is why we tell stories when we sit at our kitchen tables, why we take pictures when we travel, why we send emails to our friends. We want to connect. We want to hold on to our memories. In some very fundamental way we understand that if our memories are lost, we are lost.

One of the most curious things about Alzheimer's is that when a person living with Alzheimer's has forgotten most of their memories and nearly all their language, if they hear a song that has some strong memory attached to it, whether it is the singing of the hymn "Amazing Grace" or "The Old Rugged Cross," or even a song they once danced to with someone they loved, they can recall and call back

every word of the lyrics and sing along. When they sing, their faces are no longer blank and flat, but filled with memory in a way that can break your heart. For when the music is gone, the words and the memories are forgotten again.

Some researchers have suggested we can stem the tide of Alzheimer's by keeping mentally active doing crossword puzzles and reading books.


My mother read books and did puzzles until she no longer remembered how to read or knew puzzle pieces were meant to fit together.

Books and puzzles are not enough. I believe we should make art. I think we should take some time every day to pinch a pot, take a picture, write a poem, arrange a vase of flowers, bake a beautiful cake, sing a song, dance, do anything to spark the creative spirit within us that says: *This is what I see, this is what I feel, this is what I want to remember about this day.*

This is what I want you to remember about me. ●

Award-winning author Carrie Knowles wrote The Last Childhood to help caregivers and healthcare professionals understand the impact of Alzheimer's on the whole family. Carrie is available to speak at Alzheimer's events. She has written four other books and writes a regular column for Psychology Today called "Shifting Forward: A Wanderer's Musings" (www.psychologytoday.com/us/blog/shifting-forward), from which this article was taken. For more information about Carrie, visit www.cjanetwork.com.



A close-up portrait of Sandra Day O'Connor, an elderly woman with short, wavy white hair. She is wearing a black top with a white lace collar and large pearl earrings. She has a slight smile and is looking directly at the camera.

Sandra Day O'Connor Announces She Has Been Diagnosed with Dementia

She was featured in *Preserving Your Memory* 10 years ago

Photo: Mark Wilson/Getty Images

In October 2018, retired U.S. Supreme Court Justice Sandra Day O'Connor announced via a letter released to the media that she had been diagnosed with "the beginning stages of dementia, probably Alzheimer's disease." Along with this letter, O'Connor announced her retirement from public life, in which she had been very active following her retirement from the Supreme Court.

While it was a devastating announcement to her many admirers, in no way did the news dampen Justice O'Connor's extraordinary career—and her leadership in the fight against Alzheimer's disease.

A Woman of Firsts

Born in 1930 in El Paso, Texas, Sandra Day grew up on a large cattle ranch near Duncan, Arizona. Her home had no electricity or running water until she was 7 years old. Her parents instilled a sense of independence in her that served her well throughout her life and career. She hunted for food from a young age and began driving as soon as she could see over the dashboard.

Always an outstanding student, Sandra Day graduated from Austin High School in El Paso in 1946. She went on to attend Stanford University, earning a B.A. in economics in 1950. She stayed at Stanford to attend law school, finishing in 1952. While at Stanford Law, she served on the *Stanford Law Review* with the presiding editor-in-chief, William Rehnquist, with whom Sandra Day O'Connor would one day serve on the U.S. Supreme Court.

Six months after graduating from law school, Sandra Day married John Jay O'Connor III, a fellow student at Stanford Law School.

Although a top graduate from a prestigious law school, O'Connor had trouble finding work because of her gender. She finally landed a job as a deputy county attorney in San Mateo, California—but without a salary and without her own office.



Photo: Chip Somodevilla/Getty Images

Former U.S. Supreme Court Justice Sandra Day O'Connor (L) talks with then-U.S. Solicitor General Elena Kagan during the Sandra Day O'Connor Project on The State of The Judiciary's forum 'Striking the Balance: Fair and Independent Courts in a New Era' at Georgetown University Law Center May 20, 2009 in Washington, DC.

“I became an Alzheimer’s caregiver when my husband John was diagnosed with Alzheimer’s in 1990, and I have a first-hand understanding and a profound empathy for the millions of other caregiving families around the nation.”

— Sandra Day O’Connor

Her husband was drafted into the Army, and O'Connor went with him to Germany, working as an attorney for the Army's Quartermaster Corps. The couple returned to the States 3 years later, settling in Maricopa County, Arizona. There they began their family, with three sons to follow: Scott, born in 1958; Brian, born in 1960; and Jay, born in 1962. Following Brian's birth, O'Connor stepped away from law practice for 5 years.

During this time, she became more politically involved. O'Connor volunteered for the Maricopa County Young Republicans and worked on Senator Barry Goldwater's presidential campaign in 1964.

Returning to law practice in the mid-1960s, O'Connor served as Assistant Attorney General of Arizona from 1965 to 1969. Also in 1969, O'Connor was appointed to fill a vacancy in the Arizona Senate. She won re-election the following year and in 1973 became the first woman to serve as State Senate Majority Leader in U.S. history.

In 1974 O'Connor was elected to the Maricopa County Superior Court. She went on to serve on the Arizona State Court of Appeals, where she served until 1981—a momentous year in her life and in the history of the U.S. Supreme Court.

A Seat With the Supremes

In 1981, President Ronald Reagan appointed Sandra Day O'Connor as Associate Justice on the U.S. Supreme Court, and she would go on to be confirmed by a 99-0 vote in the U.S. Senate. It was the first televised confirmation hearing in U.S. history, and her confirmation made her the first woman to serve on the U.S. Supreme Court.

She would serve on the Court for nearly 25 years, leaving an indelible mark on U.S. law as the frequent swing voter on major cases before the Court. She was known for her often careful deliberation on a variety of issues, particularly First Amendment Establishment Cause cases. As a Justice who took a case-by-case approach to the Court's proceedings, she was sometimes criticized for being too centrist—although her judicial independence also won her praise from conservatives and liberals alike.

After the Court

Justice O'Connor served on the Supreme Court for nearly a quarter-century, retiring in July 2005. One of the biggest reasons for her retirement was to care for her ailing husband, John, who had been battling Alzheimer's disease since the late 1980s. "I became an Alzheimer's caregiver when my husband John was diagnosed with Alzheimer's in 1990, and I have a first-hand understanding and a profound empathy for the millions of other caregiving families around the nation," she said in 2008.

She continued to write and lecture about judicial issues and the Court during this time.

Also in 2005, O'Connor was named Chancellor of the College of William & Mary, a largely ceremonial post whose previous holders included Henry Kissinger, Margaret Thatcher, Chief Justice Warren Burger and President George Washington.

Another role Justice O'Connor took on was that of instructor. She taught a two-week course on the



Photo: Chip Somodevilla/Getty Images

U.S. President Barack Obama (R) presents the Medal of Freedom to retired Supreme Court Justice Sandra Day O'Connor during a ceremony in the East Room of the White House, August 12, 2009 in Washington, DC.

“While the final chapter of my life with dementia may be trying, nothing has diminished my gratitude and deep appreciation for the countless blessings of my life.”

— Sandra Day O'Connor

Supreme Court at the University of Arizona's James E. Rogers College of Law during spring semesters.

Advocate in the Fight Against Alzheimer's

In 2008, Justice O'Connor testified before the U.S. Senate's Special Committee on Aging in Washington, D.C., as a member of the bipartisan Alzheimer's Study Group on the national effort against Alzheimer's disease. "Alzheimer's is a tragic disease for families, but it is also fast becoming a national disease—a national health crisis. That's why I am here today as a member

of the Alzheimer’s Study Group, which represents an important step in helping the United States meet a bold national goal—one that seeks nothing less than to eradicate Alzheimer’s disease,” she said before the committee. It was her first public statement about her own family’s battle with the disease and the nationwide toll it is taking on families.

“Our nation certainly is ready to get deadly serious about this deadly disease,” she told the committee.

In 2009, Justice O’Connor’s husband, John, passed away from Alzheimer’s.

Her New Struggle

“I will continue living in Phoenix, Arizona, surrounded by dear friends and family,” Justice O’Connor wrote in her letter released to the media in October 2018. “While the final chapter of my life with dementia may be trying, nothing has diminished my gratitude and deep appreciation for the countless blessings of my life.”

Her colleagues and admirers were quick to react to her announcement. Chief Justice John Roberts called Justice O’Connor a “towering figure,” one who was a “role model not only for girls and women, but for all those committed to equal justice under the law.” He continued: “Although she has announced that she is withdrawing from public life, no illness or condition can take away the inspiration she provides for those who will follow the many paths she has blazed.”

Alzheimer’s: the Staggering Toll

According to the U.S. Centers for Disease Control and Prevention, Alzheimer’s disease is a growing epidemic. The CDC reports:

- 5.7 million Americans are estimated to be living with Alzheimer’s disease in 2018.
- From 1999 to 2014, Alzheimer’s death rates increased 55% and the number of Alzheimer’s deaths at home increased from 14% to 25%, while deaths in institutional settings decreased.



Photo: T.J. Kirkpatrick/Getty Images

Former Supreme Court Justice Sandra Day O’Connor testifies before the Senate Judiciary Committee on July 25, 2012, in Washington, DC.

- More than 16 million Americans provide unpaid care for people with Alzheimer’s or other dementias.

The Fisher Center for Alzheimer’s Research is leading the charge in the effort to discover better treatments and a cure for Alzheimer’s disease. ●

+ To read our Fall 2008 issue featuring Justice O’Connor, go to ALZinfo.org/news/preserving-your-memory-magazine/archive/.

Trying to Eat Healthier?

Look to Whole-Grain Breads

By Karen Michels

Toast for breakfast, a sandwich for lunch, slices of baguette for dinner—bread is ever present in our daily lives. But much of the bread we reach for is made from “white” flour, meaning it has been heavily refined. This results in a bread that is smooth and light-colored—the plastic-wrapped bread from our childhoods. Today, however, we know that these highly processed breads are nutritionally far inferior to more rustic whole-grain breads.

To understand what makes whole grains healthier, it helps to know the parts of a grain.

Grains have three main sections:

- The germ, the small central part that “germinates” into a new plant.
- The bran, the hard outer covering.
- The endosperm, the starchy filling that makes up the rest of the grain.

To make white flour, grains are processed to remove both the bran and germ. This results in flour that is consistent, smooth, and has a longer shelf life. Here’s the problem: The bran and the germ contain almost all of the nutrients in the grain, including B vitamins, protein, iron, and fiber. So removing them from the flour strips these important nutrients from the resulting bread. (Many companies add certain nutrients back into the flour, a process called “enriching.” But, even in enriched bread, most of the fiber and more than 20 other nutrients remain lost.)

These days, breads made from “whole-grain” flour have become more popular and more widely available. Choosing bread made from whole grains is better for your health. Study after study has shown that choosing whole grains instead of refined grains reduces risk for health problems, including heart disease and diabetes. Due to their fiber content, whole grains are good for digestion, more satisfying, and less likely to spike blood sugar. And whole-grain bread is simply delicious!

Choosing Whole-Grain Bread

When you’re shopping for healthier bread, keep these three tips in mind:



These days, breads made from “whole-grain” flour have become more popular and more widely available.

- **Look for “whole” in the name.** Most breads made from the whole grain are named as such: **whole wheat** or **whole grain**. Keep in mind that names such as “wheat bread,” “9-grain bread,” and “hearty-grain bread” without the word “whole” may very well be made from processed grains.
- **Read the ingredient list.** A whole grain (whole wheat, whole oats, whole rye, etc.) should be listed as the first ingredient.
- **Watch out for added sugars.** Too much sugar has been shown to be bad for your health, and breads are one place that added sugars often hide. Read the nutrition label. Be sure that sugar is not one of the first three ingredients. Look for alternative names for sugar. These include barley malt, brown rice syrup, corn syrup, and molasses.

Another option: Make your own bread at home! It’s often simpler than you think. Here’s a simple, healthy recipe for whole-grain goodness. Mix, knead, bake. And enjoy! ●

See the Multigrain Bread recipe on page 30.

Strength Training Is for Everyone, *Even You!*

By Karen Michels

You've probably heard by now how good exercise is for you. You've read about the benefits of taking a brisk walk, riding a bike, going for a swim, or climbing a flight or two of stairs. These "aerobic" types of exercise get your heart pumping, your lungs working and your muscles moving. They are great for the health of your body and mind. But, there's another essential type of exercise that we often neglect: strength training. If you think strength training is only for body builders and athletes, think again. This type of exercise is not only safe and effective for everyone, it's vital for healthy aging.

Here's why: As we grow older, our bodies tend to lose strength and muscle mass. This is called **sarcopenia**. Sarcopenia causes the body to grow weaker and frailer. In time, it's harder to do many activities of daily living, such as climbing stairs, carrying groceries, even getting dressed. And worst of all, falls are more common and are more likely to lead to injury. But exercise, especially strength training, helps keep sarcopenia at bay. Strength training preserves and even builds muscle mass, and it makes muscles and bones stronger. The result? Daily activities get a little easier. You're less likely to injure yourself. And you're more likely to stay active and independent.

Have a health condition? Don't let that stop you! In fact, strength exercises have been shown to help improve many chronic health problems, including arthritis, osteoporosis, heart disease, type 2 diabetes and back pain.



Convinced? Good! It's time to work strength training into your daily routine. The best results come when training is done 2 to 3 times a week. Five to ten minutes a session is all you need, especially at first. It's a good idea to talk with your healthcare provider before starting any new type of exercise, particularly if you have a health condition. But don't worry about buying special equipment. You can do strength training without ever touching a barbell. As you progress, you might try using stretchy "resistance bands." But you can get started with what you already have in your house, such as a sturdy chair and soup cans.

All that is left is finding a program that works for you. There are many ways to learn simple strength training exercises. Ask your healthcare provider for suggestions. Your local hospital, wellness center, gym or senior center may offer classes. Or try searching online for the term "strength exercises" or "resistance exercises." The CDC has a helpful booklet about strength training for older adults. To find it, go to www.cdc.gov/physicalactivity/downloads/growing_stronger.pdf. ●



Advance Care Planning: Why You Should Do It and How to Start the Process

By Julie Cooper
Edited by Bernard A. Krooks, Esq.
Past President of the
National Academy of Elder Law Attorneys

Any one of us, at any age, can be affected by a serious health condition or accident that leaves us unable to make decisions about the care we receive. Yet, planning ahead for our future healthcare is something many of us would prefer to put off or avoid altogether, even though we know this is something we *really should do*—sooner rather than later.

Planning in advance can be even more pressing for a person who has recently been diagnosed with Alzheimer's disease or another form of dementia. As the disease progresses, their mental functioning will decline to a point where they can no longer make sound decisions and participate in their own healthcare planning. "Try not to wait until it's too late," says Michael Amoruso, president of the National Academy of Elder Law Attorneys.

It's too late, legally speaking, when a person is found to no longer have what's called "mental capacity." Determining whether a person has mental capacity is typically the responsibility of a healthcare provider (for example, the person's neurologist) or a lawyer. If a person with dementia is deemed to have mental capacity, it is vital that discussions about advance care planning start right away and that they be fully involved. "This is their life," says Amoruso. "They are experiencing the effects of the disease and deserve the dignity to control their future."

Getting Started

The first step in the planning process for a person with Alzheimer's or other dementia and their loved ones is learning about the different kinds of healthcare decisions they may face as the disease progresses. This is where talking with their healthcare provider(s) can be immensely helpful. A family doctor or neurologist can shed light not only on the health issues a person with



dementia may experience down the road, but also the various treatment options and how these treatments may affect their quality of life.

Then the person can make well-informed decisions about the kind of treatment they would and wouldn't want in the future. This involves figuring out what they value most in life and asking themselves some tough questions like, "If I could no longer swallow, would I want to be fed through a tube and get fluids via an IV to prolong my life?" or "At what point would I not want to be resuscitated if my heart stopped?"

Talking with family, close friends or a counselor can help a person work through these kinds of difficult questions. So too can using the Institute for Healthcare Improvement's Your Conversation Starter Kit For Families and Loved Ones of People With Alzheimer's Disease or Other Forms of Dementia. This Starter Kit was developed to help people with dementia talk about their end-of-life wishes with others. It includes a series of questions to help them clarify how they want to live at the end of their lives and what kind of care they'd like to receive.



They also need to consider whom they'd like to make healthcare decisions on their behalf when they're no longer able to. This person is called a healthcare proxy (or agent, surrogate or representative, depending on the state). A proxy can speak for the person with dementia only if they can't state their wishes themselves.

A proxy could be a family member, close friend, spiritual leader or the person's lawyer. It should be someone the person with dementia is comfortable with and trusts and who supports their wishes. It's also a good idea to name one or two alternates as backup. And before officially designating a person as a proxy or alternate, they must understand their duty and be willing to accept it. And the more they know about the person with dementia's values and wishes, the better prepared they will be to carry them out.

Getting It in Writing

Once a person's wishes are known, the next step in advance care planning is protecting those wishes by having the proper legal documents prepared.

If a person in the early stages of dementia has legal documents that were prepared before their diagnosis, they should review them as soon as possible and make any needed changes to ensure the documents reflect their current wishes.

The most important document for healthcare planning is the advance directive. It communicates the healthcare wishes of a person when they no longer can and allows them to designate a proxy to make decisions on their behalf. This document, however, can be prepared only while the person with dementia has mental capacity.

Be aware, too, that laws on advance directives vary by state. Because of this, it's advisable to retain a qualified lawyer, such as an elder law attorney, to prepare these documents. A good lawyer can guide the person with dementia and their loved ones through the legal process and explain the different documents that could be used in planning. These could include a power of attorney, living will, Do Not Resuscitate Order and Physician Orders for Life-Sustaining Treatment form. (Another benefit of using a lawyer is that they can coordinate health care planning with financial planning and recommend the appropriate financial documents to have, such as a power of attorney and a living trust.)

While free or inexpensive planning documents are available online, Amoruso cautions against using them. They can save a person money in the short-term, he says, but may not be adequate in ensuring the person's

wishes are carried out. He stresses the importance of getting comprehensive, well-drafted documents that protect a person's wishes and prevent the courts from getting involved, such as in a guardianship proceeding where the court appoints someone to make healthcare decisions on a person's behalf.

For those who can't afford a lawyer, there are other resources available that may offer assistance with advance planning, such as state legal aid and state bar associations.

While healthcare planning can be overwhelming, getting solid plans in place is in everyone's best interest. For the person with dementia, it can bring peace of mind knowing that their wishes will be respected. For caregivers and other loved ones, it can help them cope and lessen the burden of having to make difficult decisions and the guilt or the wondering if they did the right thing. ●

Bernard A. Krooks is managing partner of the law firm Littman Krooks LLP (www.littmankrooks.com). A certified elder law attorney, he is a past president of the National Academy of Elder Law Attorneys, past chair of the elder law committee of the American College of Trust and Estate Counsel, and past president of the Special Needs Alliance.

Resources to Help You Plan

- **Fisher Center's Resource Locator**
ALZinfo.org/resource-locator
800-259-4636
- **The Conversation Project**
theconversationproject.org
- **National Academy of Elder Law Attorneys (NAELA)**
naela.org
703-942-5711
- **Eldercare Locator**
eldercare.acl.gov
800-677-1116
- **National Institute on Aging**
nia.nih.gov/health/legal-and-financial-planning-people-alzheimers
800-222-2225
- **American Bar Association, Commission on Law and Aging**
abanet.org/aging/toolkit/home.html
800-285-2221



Brain-Boosting Puzzles

“Use it or lose it.” The message is simple. If you don’t use your muscles, they will no longer be as effective as they should be. Of course, the brain is not a muscle; however, it has recently come to light that “mental workouts,” such as solving crosswords and other puzzles, can help ward off Alzheimer’s. In these pages, we offer a variety of different types of puzzles that will work out your various skills involving memory, deduction, and letter manipulation, and, we hope, also provide you with a ton of fun!

(Answers on page 29)

MATCH THESE

Can you match each of these Americans who achieved their greatest fame in the first half of the 20th century to his or her field?

- | | |
|---------------------------------|------------------|
| 1. _____ Jane Addams | a. Architecture |
| 2. _____ Luther Burbank | b. Aviation |
| 3. _____ W.E.B. DuBois | c. Evangelism |
| 4. _____ Frank Lloyd Wright | d. Civil rights |
| 5. _____ Louis Brandeis | e. Horticulture |
| 6. _____ Aimee Semple McPherson | f. Industry |
| 7. _____ Clare Boothe Luce | g. Jurisprudence |
| 8. _____ Irving Berlin | h. Warfare |
| 9. _____ Henry Ford | i. Politics |
| 10. _____ Paul Robeson | j. Singing |
| 11. _____ Amelia Earhart | k. Social work |
| 12. _____ John J. Pershing | l. Songwriting |

DROPLINE

Take the letters in the top half of each column below and distribute them in the blanks of the bottom half so that the letters read from left to right spell out a short witticism. The black squares are the spaces between words. One letter has been dropped in place to start you off.

M	E	N	E	X	A	O	T	A	D	O	A	F	E	K	E
R	A	O	R	E	W	G	L	P	E	O	F	L	I	I	T
	N	A	D	T	B	C	T	H	Y		O	L	T	H	E
						O		L			P				A
	N														

LEAPFROG

Here’s a list of world capitals — the city and its country. The letters of the two words are in the correct order, but they overlap. All you have to do to find the terms is separate the letters.

Example: LPIORSTBUOGANL — LISBON, PORTUGAL

- | | |
|----------------------|-------|
| 1. COATNATADWAA | _____ |
| 2. DIRUEBLALNIND | _____ |
| 3. BRBUELSGSIEULSM | _____ |
| 4. SMAPADIRIND | _____ |
| 5. TLIRIBPOYLIA | _____ |
| 6. ACUASNBTREARLIRAA | _____ |
| 7. POWALARSANWD | _____ |
| 8. JINADOKANERSIATA | _____ |
| 9. SACNTHAILGOE | _____ |

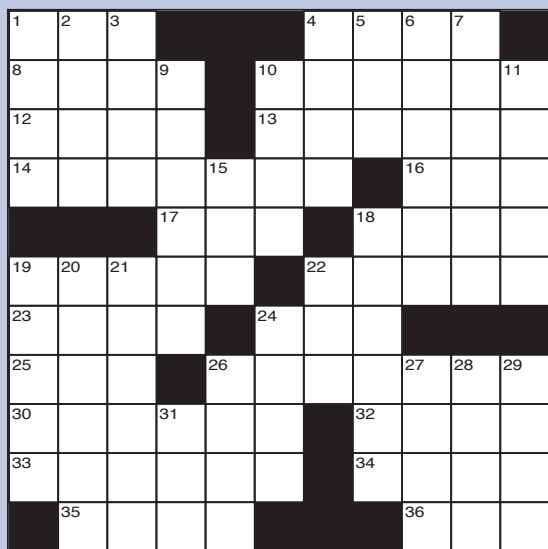
•VISIT US AT KAPPAPUZZLES.COM•



BRAIN-BOOSTING CROSSWORDS

(Answers on page 29)

We have provided two crosswords here to sharpen your puzzle skills. Start with the one on the left, which is the easier puzzle. In this one we have provided solving aids, such as the number of words in multi-word entries. The puzzle on the right is a medium-level puzzle and the number of words in the answers have been eliminated. The second puzzle is also a thematic puzzle: the title "Just a Quick Note" is a hint. Have fun testing your knowledge while doing something that's good for you!



Across

1. Circle part
4. Start to awaken
8. Pilot's stunt
10. Aviators
12. "___ Wanna Do" (2 wds.)
13. Cut open
14. Shoreline scavenger (2 wds.)
16. Mild exclamation
17. R followers
18. Group of buffalo
19. Kindergartner's glue
22. Indexes
23. Creative
24. Chocolate shape
25. Undercover gp.

26. Most engaged
30. Biblical queen
32. Intl. pact
33. Deli sandwich
34. Actor Kinnear
35. Broadway lighting
36. Records (abbr.)
11. Wants
15. Shoshonean
18. Taking on workers
19. Certain racehorse
20. Ascended
21. The ___ of Liberty
22. Vegas intro
24. Incinerate
26. "I've ___ thinking..."
27. British title
28. Dancer's move
29. Clothes
31. Cable option (abbr.)

Down

1. Woeful cry
2. Part played
3. Soda type
4. Door part
5. Three (Ital.)
6. Mirror reflections
7. Change back
9. Farm pen
10. First Amendment gp.

Just a Quick Note

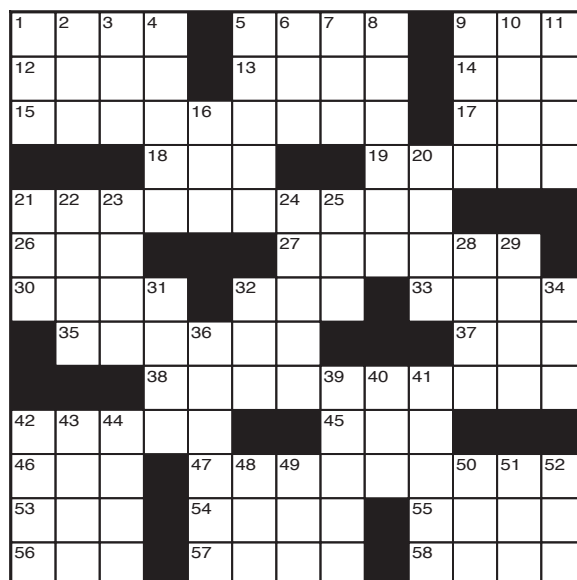
Across

1. PDQ, to your boss
5. Wise men
9. "___ Lazy River"
12. Justice Ginsburg
13. Lena of "The Reader"
14. Newsmen Russert
15. Autobiographer
17. Munched on
18. ___-la-la
19. Actor Hawke
21. Pathway to nostalgia
26. Cool cubes
27. Senior
30. Sills solo
32. NYC transit org.
33. Like sleepers' eyes
35. Clear a drain blockage
37. ___ crossroads
38. Office document
42. Indian emblem
45. "Are you a man ___ mouse?"
46. Football

- units (abbr.)
- Edifices for Lincoln and others
- Korean car company
- Fail to include
- Tells a tall tale
- Always, in poems
- Pecans, e.g.
- Whole bunch
21. Soccer's Hamm
22. Unbleached color
23. Chicken chow ___
24. Unhand
25. ___ king
28. Bony fish
29. Ballet garb
31. Top
32. Apple pie baker
34. Scot's cap
36. Matthau's frequent costar

Down

1. Provide weapons
2. "Runaround ___"
3. Cash machine (abbr.)
4. Picture, for short
5. Eel type
6. Actress MacGraw
7. Enlisted men, for short
8. Propose
9. Neighbor of Nevada
10. Bread for hummus
11. Prayer finale
16. Like some as-is garments (abbr.)
20. Golf pegs
39. Tree parts
40. Departure's opposite (abbr.)
41. Chewed items
42. Small child
43. Garfield's buddy
44. Nicholas or Alexander
48. Ostrichlike bird
49. Major engineering school (abbr.)
50. Be sick
51. Dungarees brand
52. Vane dir.



BRAIN-BOOSTING PUZZLES

HIDDEN-MESSAGE WORD-FIND™

The names of these charitable organizations can be found in the letter grid reading across, up and down, and diagonally. When you have found them all, read the leftover letters to discover an apt quote from English author and physician Sir Thomas Browne.

You are looking for a 41-letter phrase.

CITY OF HOPE	MEALS ON WHEELS	M	S	E	M	I	D	F	O	H	C	R	A	M	W
		Y	E	B	E	C	H	F	A	S	R	E	E	O	I
COMIC RELIEF	RED CROSS	M	T	A	T	A	E	B	S	L	P	C	R	B	S
		R	F	E	L	C	E	O	B	O	A	L	E	U	L
COVENANT HOUSE	SALVATION ARMY	A	F	E	I	S	R	O	H	E	D	R	G	L	A
		N	E	N	I	C	O	F	P	V	W	E	O	C	E
EASTER SEALS	SIERRA CLUB	O	U	A	D	L	O	N	I	L	T	H	O	A	S
		I	M	E	A	Y	E	S	W	K	E	S	D	R	R
GOODWILL	TOYS FOR TOTS	T	R	T	T	E	I	R	E	H	H	E	W	R	E
		A	E	I	R	O	C	O	C	N	E	V	I	E	T
GREENPEACE	UNICEF	V	C	G	N	E	T	O	U	I	A	E	L	I	S
		L	H	S	I	W	A	E	K	A	M	M	L	S	A
HUMANE SOCIETY	WORLD VISION	A	C	O	V	E	N	A	N	T	H	O	U	S	E
		S	T	O	T	R	O	F	S	Y	O	T	C	H	S
MAKE-A-WISH															
MARCH OF DIMES															

SUDOKU

To complete the puzzle below, fill in the squares so that each digit 1 through 9 appears exactly once in each row, in each column, and in each enclosed nine-unit block.

				9		2	4	6
	4	1			6			
			2	7				5
8	9							2
	1			6			9	
5							1	4
9			3	5				
			9			3	2	
4	3	8		7				

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Preserving Your Memory



PUZZLE ANSWERS

Match These

1k, 2e, 3d, 4a, 5g, 6c, 7i, 8l, 9f, 10j, 11b, 12h.

Dropline

No two people are exactly alike, and both of them are glad of it.

Leapfrog

- Ottawa, Canada;
- Dublin, Ireland;
- Brussels, Belgium;
- Madrid, Spain;
- Tripoli, Libya;
- Canberra, Australia;
- Warsaw, Poland;
- Jakarta, Indonesia;
- Santiago, Chile.

Hidden Message

Be charitable before wealth makes thee covetous.

Crossword 1

A	R	C		S	T	I	R			
L	O	O	P	A	I	R	M	E	N	
A	L	L	I	C	L	E	A	V	E	
S	E	A	G	U	L	L	G	E	E	
		S	T	U		H	E	R	D	
P	A	S	T	E		L	I	S	T	S
A	R	T	Y		B	A	R			
C	I	A		B	U	S	I	E	S	T
E	S	T	H	E	R		N	A	T	O
R	E	U	B	E	N		G	R	E	G
	N	E	O	N			L	P	S	

Crossword 2

A	S	A	P		M	A	G	I		U	P	A	
R	U	T	H		O	L	I	N		T	I	M	
M	E	M	O	I	R	I	S	T		A	T	E	
			T	R	A		E	T	H	A	N		
M	E	M	O	R	Y	L	A	N	E				
I	C	E			E	L	D	E	S	T			
A	R	I	A		M	T	A		S	H	U	T	
		U	N	C	L	O	G			A	T	A	
				M	E	M	O	R	A	N	D	U	M
T	O	T	E	M		O	R	A					
Y	D	S			M	E	M	O	R	I	A	L	S
K	I	A		O	M	I	T		L	I	E	S	
E	E	R		N	U	T	S		S	L	E	W	

Word-Find

M	S	E	M	I	D	F	O	H	C	R	A	M	
Y	E	B	E	C	H	F	A	S	R	E	E	O	I
M	T	A	T	A	E	B	S	L	P	C	R	B	S
R	F	E	L	C	E	O	B	O	A	L	E	U	L
A	F	E	I	S	R	O	H	E	D	R	G	L	A
N	E	N	T	O	O	F	F	V	W	E	O	C	E
O	U	A	D	L	O	N	I	L	T	H	O	A	S
I	M	E	A	Y	E	S	M	K	E	S	D	R	R
T	B	T	T	E	R	E	H	H	E	W	R	E	
A	E	I	R	O	C	O	C	N	E	V	I	E	T
V	C	G	N	E	T	O	U	A	E	L	L	I	S
L	H	S	I	W	A	E	K	A	M	M	L	S	A
A	C	O	V	E	N	A	N	T	H	O	U	S	E
S	T	O	T	R	O	F	S	Y	O	T	O	H	S

Sudoku

3	7	5	8	9	1	2	4	6
2	4	1	5	3	6	7	8	9
6	8	9	2	4	7	1	3	5
8	9	4	1	5	3	6	7	2
7	1	2	4	6	8	5	9	3
5	6	3	7	2	9	8	1	4
9	2	7	3	1	5	4	6	8
1	5	6	9	8	4	3	2	7
4	3	8	6	7	2	9	5	1

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Multigrain Bread

Makes 16 servings.

Ingredients

- 1½ cups warm (not hot) water
- 1 tbsp. honey
- ¼ oz. dry active yeast (1 package)
- 2 cups white whole wheat flour
- 2 cups whole wheat pastry flour
- ½ cup rye flour
- ½ cup buckwheat flour
- ½ cup oat flour
- 1½ tsp. kosher salt, divided
- 1 tsp. extra-virgin olive oil
- ¼ tsp. sugar



Directions

Mix together water, honey, and yeast in small bowl. Let stand until foamy, about two minutes. In a separate large bowl, stir together white whole wheat flour, whole wheat pastry flour, rye flour, buckwheat flour, oat flour and 1 teaspoon kosher salt. Pour water/yeast mixture into flour mixture, and stir until mostly combined. Then knead until it springs back to the touch, about three to four minutes. (To knead, punch in the middle, then fold over from the top so it looks like a pair of lips, then turn the dough by a quarter, counterclockwise. Repeat.) Divide into two rounds, cover, and let rise until doubled in size, about two hours. Preheat oven to 400 degrees. Place loaves on baking sheet topped with silicone baking mat. Brush each loaf with ½ teaspoon olive oil, then sprinkle each loaf with ¼ teaspoon salt and ⅛ teaspoon sugar. Slice diagonal cuts on top of each loaf. Spray oven with water to create steam. Bake loaves for three minutes. Spray again, then let loaves bake for about 40 to 45 minutes.

Each serving contains:

Calories: about 154

Total fat: 1 g

Saturated fat: 0 g

Trans fat: 0 g

Cholesterol: 0 mg

Sodium: 186 mg

Total fiber: 5 g

Protein: 5 g

Carbohydrates: 32 g

Sugar: 1 g

Fisher Center Scientist Spotlight

Thanks to the outstanding work of Fisher Center's world-renowned scientists,
we are getting closer to finding a cure!



Dr. Jose Ledo

*Postdoctoral Associate at the Fisher Center for
Alzheimer's Research at The Rockefeller University*

Hometown:

Jose grew up in Rio de Janeiro, a seaside city in Brazil famed for its Copacabana and Ipanema beaches.

Education:

He completed his PhD at the Federal University of Rio de Janeiro in Brazil, where he investigated the molecular mechanisms linking Alzheimer's disease to depression. Jose joined the Greengard Laboratory in 2015 to work on Alzheimer's disease.

Fun Fact:

Jose is an passionate environmentalist, so it is very common to see him in the lab sorting waste and encourages his colleagues recycle as much as they can. He said he can be very persistent at times but it's for a worthy cause.

Research Discoveries:

Under the direction of Nobel laureate Dr. Paul Greengard, Jose's research focuses on an understudied aspect of the disease: the contribution of immune cells in the brain to the pathogenesis of Alzheimer's. Using a technology that the Fisher Center scientists invented a few years ago to map all proteins present in a given type of cell, Jose focuses on finding the particularities of the immune cells in the brain, called microglia.

Jose is also investigating how microglial cells become defective and affect neuronal cells triggering the cognitive decline observed in Alzheimer's disease. He is planning to submit some of his exciting results for publication very soon, so stay tuned.

**We want to thank Dr. Jose Ledo
and all of our world-renowned
scientists at the Fisher Center
who work hard every day in
the quest to find a cure.**



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