People are good for your brain! Decades of research have shown that individuals who have more people in their social network, or stronger ties with individuals within their network, have lower rates of illness and death. In other words, social isolation can increase your risk of disease, including dementia.

According to a recent report by the Lancet Commission, 2.3% of dementia cases could be prevented by simply reducing social isolation. Social isolation has a major influence on our health, especially on the health of older adults.

Knowing this, is it possible to improve the health of our brain by increasing how often we interact with others? What types of social interactions are most effective at improving the health of our brain? Can everyone gain by interacting more? What happens when someone who is shy and introverted is forced to be socially active and does that interaction negatively impact them? We hope to answer these questions through our research.

Eight years ago, Dr. Hiroko Dodge and her team started a behavioral intervention research study, examining if participating in video chats could improve cognitive function. In the pilot study, completed in 2014, seniors had 30-minute video chats with trained conversation staff five times a week for six weeks.

The results were encouraging. Despite the study’s short duration, those who participated in video chats significantly improved in some cognitive tests, compared to the control group who did not engage in any video chats.

Encouraged by these findings, she and her team are now working on two five-year-long projects...
Grief from two viewpoints

by Allison Lindauer, Ph.D., N.P.,
Assistant professor; director, Outreach, Recruitment and Education, Layton Aging and Alzheimer’s Disease Center

Formerly, my professional life was focused on identifying, analyzing, and naming the grief experience of families living with dementia. This personal experience validated what I already knew: There are different kinds of grief and all of us grieve in different ways.

My father’s death was expected. He was in his own home; his family, dog and cat were with him. I was the last one to tuck him in and give him a kiss before he died. I feel really good about how our family managed his death. A powerfully optimistic man, his last words were, “I’m fine.”

We were sad, of course, when he died, but it was the “grief mixed with relief” that scientists talk about in their research. We were worried that he would have to go to a nursing home, move away from his farm. We are saddened by his loss, but relieved that he went on his own terms.

Our dog, however, was only 9 and in his prime. I expected his death in three or four years, but not now. We kept him alive with steroids for two months but had to let him go in March. We were heartbroken; I now know what “keening” means (a wailing lament).

Both grief experiences were moving and sobering. However, my “pre-death” grief with my dad started years ago and came in little doses. I think it made his death easier. We hear this a lot from family members of those with dementia. Pre-death grief can start at diagnosis and persist across the rest of the dementia course. It can be experienced as sadness, but can also be expressed as irritability, anger, a sense of feeling flat and disinterested in life. If you, or someone you know, is experiencing this, resources are available to help. You can call us at 503-494-7615, and the Alzheimer's Association can also be very helpful. Their 24/7 hotline can be reached at 800-272-3900.

And yes, my family is adjusting to our losses. We continue to sort through dad’s house, reminisce about him and enjoy our time together. We brought a new puppy into our home, so now instead of hearing keening from our home, our neighbors hear loud laughter.

For more tips and insights about caregiving, follow me on Twitter @AllisonLindauer!
Sharing stories through soul food and art

This spring, the PreSERVE Coalition partnered with the Geezer Gallery to provide a six-week creative arts and writing program to Portland’s African-American community. PreSERVE is an alliance of African-American community members, nonprofit organizations (such as the Alzheimer’s Association) and health care organizations (including OHSU’s Layton Aging and Alzheimer’s Disease Center.) PreSERVE works to improve the brain health of those in the African-American community and promotes healthy aging. The Geezer Gallery hosts artistic classes for community elders and displays works by artists who are 60 or older.

“PreSERVE focuses on programs that engage the community in healthy lifestyles. This one includes several aspects important to maintaining a healthy brain: socialization, creative expression and learning new things,” said Dr. Allison Lindauer, director of Outreach, Recruitment and Education at the Layton Center. “Supporting PreSERVE’s approach to promoting brain health allows the Layton Center to engage with the African-American community, which has been largely underrepresented in aging-related research.”

According to Edline Francois, B.A., the program coordinator and research assistant at the Layton Center, participants can empower themselves and their community by sharing their stories. “By freely expressing themselves, participants can strengthen their community’s voice, a voice that has largely been underserved and underrepresented.”

Guided by professional artists, participants make a mixed-media collage that illustrates their soul food recipes, tapping into memories of cooking with their families. By creating a unique piece of art, participants can express how soul food has influenced their lives, health and relationships.

“The program caught my attention as it offered something different,” mentions Angela, as she paints layers of decoupage glue onto her photos, a map of her childhood town and a copy of her favorite recipe. Once the glue dries, she’ll transfer those materials onto a canvas using a special water-based technique. Her egg pie with corn bread dressing recipe belonged to her grandmother.

During each weekly two-hour long class, the 12 participants also write in their journals and take part in discussions about their family traditions and memories of soul food. “Participants bond with each other as they reminisce about their childhoods,” said Edline. “Several participants, who have lived in Portland for over 20 years, shared that they are from Arkansas, Louisiana and Missouri. These shared roots helped create familial connections.”

“I love cooking, storytelling and ancestry,” says Karen, as she spritzes water on her photos. “This project brings all of these together, all in one medium.” Her Spanish rice recipe was one of the first dishes she ever made, at the age of 10.

Held at the June Key Delta Center in North Portland, the program allowed participants to express themselves in new ways. The PreSERVE Coalition, the Geezer Gallery, the Portland Alumnae Chapter of the Delta Sigma Theta Sorority and the Regional Arts and Culture Council helped organize the program. Following the last class, participants attended a reception where they could share their art and experiences with the broader community.

“I didn’t do a lot of art growing up,” says Patricia, who is drying the glue she painted on a photo. Her pudding cake recipe was passed down through generations. “Beautiful things come out of this class.”
National Institutes of Health Research Project Grant Program (RO1)

The Research Project Grant (R01) is the original grant mechanism used by the NIH. The R01 provides support for health-related research and development based on the mission of the NIH.

We are pleased to announce that Lisa Silbert, M.D., M.C.R., associate professor, neurology, at OHSU’s School of Medicine, and Randy Woltjer, M.D., Ph.D., associate professor, pathology, at OHSU’s School of Medicine, were awarded an R01 for “MRI studies of postmortem tissue in Alzheimer’s disease and vascular cognitive impairment.”

SUMMARY: Alzheimer’s disease and dementia due to stroke and vascular disease are the most common causes of dementia and coexist in most patients. How these different diseases relate to each other is currently unknown. This grant will use novel ultrahigh-strength magnetic resonance imaging (MRI) of brain tissue to study how vascular disease, manifested as lesions in the white matter of the brain, is associated with changes in brain cells that lead to white matter injury and Alzheimer’s disease pathology. The overall goal of the study is to identify mechanisms of age-related cognitive decline so that effective treatments can be identified.

Oregon Alzheimer’s Disease Center Grants

The pilot project program of the NIH-funded Layton Aging and Alzheimer Disease Center promotes basic and clinical biomedical, translational, epidemiological, caregiving, educational and behavioral research on Alzheimer’s disease, other dementias and normal brain aging. The funding provides modest support to allow an investigator to develop preliminary data sufficient to provide the basis for an application for independent research support. This year’s awards went to:

Christina Reynolds, Ph.D., C.R. ORCATECH postdoctoral researcher, “MODERATE — Monitoring dementia-related agitation using technology evaluation”

SUMMARY: Dr. Reynolds’ project is focused on learning more about agitation in persons with Alzheimer’s disease and other dementias. Sensors will be placed in the homes of persons with dementia, who will also wear activity monitors. The data from these sensors and monitors will be used to create algorithms for identifying the frequency and severity of episodes of agitation.

Kathy Magnusson, D.V.M., Ph.D., professor and principal investigator at the Linus Pauling Institute, “Early changes in glutamate receptors in the 5XFAD Alzheimer’s disease model”

SUMMARY: Our research is designed to characterize changes in the communication between neurons that occur earlier in life than had previously been found for this mouse model of Alzheimer’s disease. We believe that this could lead to discoveries about the initiating factors of Alzheimer’s disease, which could lead to prevention of the disease.
Receiving a diagnosis of Alzheimer’s disease or another type of dementia can be overwhelming. It is important to get the right kind of support, but knowing how to navigate the complex system of resources can be confusing. The Layton Center’s licensed clinical social worker, Angelie Healy, assists patients and their families by helping them connect with resources for each stage of the disease. She also provides education, counseling support, and advance care planning for those in need. Angelie started working with the Department of Neurology at OHSU in January 2016. She brings 12 years of postgraduate experience, working with patients and families who are dealing with a variety of chronic and progressive illnesses. She feels that working with people affected by neurological diseases, such as dementia, is the work she’s meant to do.

People with dementia are often encouraged to exercise on a daily basis, follow a nutritious diet and participate in mentally stimulating and socially engaging activities. Clinicians at the Layton Center may refer a patient and his or her care partner to Angelie to provide resources and guidance specific to the stage of the disease. During a typical appointment, patients and care partners may be asked about housing, financial concerns, caregiver assistance, support groups, social connections, goals of care, advance directives and more. Having support and tapping into community resources can improve quality of life for the individual and their family members.

Those affected by Alzheimer’s disease often experience a range of emotions during each stage of the disease. It is important to receive support along the way. Friends, family and formal support services can help meet the emotional needs of the individual and the family member. The impact a diagnosis can have on care partners brings its own unique set of challenges. They are at risk of becoming socially isolated and experiencing anxiety, depression and grief. As a social worker, Angelie recognizes this and offers mental health counseling or referrals if needed. She enjoys the connections she makes with each individual, as each person’s journey is unique and insightful.

Outside of work, Angelie spends time with friends, family and her two kitties. She enjoys partaking in the Portland dining experience, which often requires a necessary walking, biking, rock climbing or hiking excursion to follow. She also likes to write, read and cook, and she loves to play chess.

Angelie Healy, L.C.S.W., M.S.W., Neurology
which the video chats last for one year. The team is partnering with local Meals on Wheels groups to recruit isolated seniors. This is a multicenter clinical trial involving OHSU, the University of Michigan and Wayne State University. Both of these studies — taking place in Oregon and Michigan — are recruiting socially isolated individuals who are 80 or older. “People who are very old or socially isolated rarely participate in intervention trails, even though they have a greater risk of developing dementia or mild cognitive impairment. We designed an intervention study with the needs of this group in mind, including those who are home-bound or who live in isolated environments,” Dr. Dodge said.

Dr. Dodge’s team is also using many advanced technologies to determine whether social engagement can improve brain health. These include electronic pillboxes to monitor if participants are taking their medications on schedule, new cognitive testing using iPads and innovative techniques that analyze speech and language. The team will use functional and volumetric magnetic resonance imaging (MRI) scans to examine possible changes in brain structure and function that may take place during the study. Recruitment for the study started in May.

To be eligible for this study, participants need to be 80 years old or older, living alone and socially isolated. The latter includes eating most meals alone and having a limited social network.

This series of intervention studies is one of the few behavioral randomized controlled trials focusing on the social interactions of older adults. All of the studies are funded by the National Institutes of Health. The recruitment process, implementation of modern communication technologies, and the results obtained in these trials will form an essential and highly valuable foundation for future behavior-based dementia prevention and intervention trials.

More information is found at: www.i-conect.org


Funding sources: NIH/NIA R01AG056102, R01AG051628, R01 AG033581
THE POLYUNSATURATED FATTY ACIDS (PUFAS) STUDY

What are PUFAs and what is their potential to prevent dementia?

Lynne Shinto, N.D., M.P.H.,
Associate professor, neurology, OHSU School of Medicine

Long-chain PUFAs are oils that are found in plants and animals and we get them through our diet. Through diet, most of us attain the right amount of oils we need to maintain healthy brain function. The caveat is that over one’s life, the absorption of healthy oils and other nutrients from diet may become impaired with advancing age, and this can negatively impact overall health, including brain health.

The PUFA study is a National Institutes of Health-funded study led by OHSU investigators, the goal of which is to test whether people at risk of dementia, including Alzheimer’s disease, who are supplemented with PUFA oil capsules (fish oil) will have an improved MRI brain profile compared to their baseline MRI profile. We will also evaluate the MRI brain profiles of those receiving a placebo oil.

The PUFA study is no longer recruiting as it was successful in enrolling 100 participants. The last participant will complete the study in October 2019.

We hope to report positive results around this time, so stay tuned!

We are currently recruiting healthy participants 55 years and older for a 16-week study evaluating how a proprietary combination of omega-3s and citicoline, a naturally occurring nutrient in the body important for healthy brain function, affects attention. Please contact Kirsten Hagen at 503-494-7993 for more information.

If you would like information about our current trials and research participation opportunities at the Layton Center, please call our research team at 503-494-7647 or email adresearch@ohsu.edu.
Please call the OHSU Integrity Office at 855-257-4100 if you no longer wish to receive newsletters, invitations or other fundraising information. OHSU is an equal opportunity, affirmative action institution.

The C. Rex and Ruth H. Layton Aging and Alzheimer’s Disease Center

The Layton Aging and Alzheimer’s Disease Center is one of the 31 NIA Alzheimer’s Disease Centers in the U.S. and the only one of its kind in Oregon. Our center is recognized as a national leader in dementia care and research, and is committed to serving the needs of people throughout the Northwest.

The Layton Center is a part of the OHSU Brain Institute (OBI). OBI is a national leader in neuroscience patient care, research and education.

Contact the Layton Center at 503-494-6976.

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Help us take on the impossible

The C. Rex and Ruth H. Layton Aging and Alzheimer’s Disease Center is dedicated to the study and treatment of Alzheimer’s disease and other dementias.

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Join us!

2018 Walk to End Alzheimer’s

The 2018 Walk to End Alzheimer’s in Portland, organized by the Oregon Chapter of the Alzheimer’s Association, is Sunday, August 26, at the Rose Quarter Commons. As in previous years, the OHSU Layton Aging and Alzheimer’s Disease Center is rallying its team to help advance Alzheimer’s support, care and research. We welcome you to join the OHSU Layton Center Team to support this very important cause.

www.alz.org/walk