

## Remember This: A Q&A on Alzheimer's Disease And A Free Memory Screening Event

By Scott LaFee | December 20, 2016



It's easy to forget but forgetfulness is a part of life, a natural consequence of aging. Alzheimer's disease (AD) is characterized by the progressive decline in memory and other cognitive skills, but it is not natural. Its cause — or causes — are not fully understood, but appear to involve abnormal accumulations of protein that form plaques and tangles in the brain. These damage nerve cells

and impair brain function.

Currently, there is no cure for AD, no treatment to reverse neurodegeneration. Prevention may be a better remedy and doctors are becoming increasingly better at diagnosing AD, even at its earliest stages when symptoms may be minimal.

For persons over the age of 60 or those worried about AD (it can run in families), a good first step is to have a memory screening, which can provide a baseline assessment and indicate whether further testing or action is needed.

On January 24, the Shiley-Marcos Alzheimer's Disease Research Center (ADRC) will host a memory screening event for seniors aged 65 and older at 9444 Medical Center Drive, Suite 1-100, from 8:30 a.m. to 3:30 p.m. The 30-minute screening is free, with no further obligation.

Participants will receive feedback about their assessment, plus learn more about community AD resources and research opportunities. Those interested should call 858-822-4800 to schedule an appointment and receive driving and parking instructions.

In the meantime, we asked two experts to discuss the first signs of AD and what to do: [Douglas Galasko, MD](#), is co-director of the Shiley-Marcos ADRC and professor in the Department of Neurosciences at the UC San Diego School of Medicine. [James Brewer, MD, PhD](#), is interim chair of the Department of Neurosciences, interim director of Shiley-Marcos ADRC and director of the Alzheimer's Disease Cooperative Study Imaging Core.

**Question:** What are the early signs of AD? How do you differentiate between the first warning signs and normal forgetfulness and other memory loss associated with aging?



**Galasko:** Our brains and cognitive abilities change as we grow older, but not in a way that limits our ability to function. With awareness of serious problems like AD, it is tempting to blame any lapse or error on 'memory.' However there are important differences between the features of brain aging and those that clearly signal problems such as Alzheimer's.

A person with Alzheimer's has difficulty forming and retaining new memories, for example, richly detailed memories of conversations and events. In the earliest stages, this may occur inconsistently, for example only when someone tries to recall a more complex or novel event or a highly detailed conversation or set of instructions. Over time, the memory lapses become more consistent and pervasive. Often, the person with

Alzheimer's does not notice or appreciate the extent of their memory changes, and a spouse or relative will report the problems.

In contrast, age-related changes can make it hard for someone to retrieve words or names (the 'tip-of-the-tongue' phenomenon), and the word often will come back later. Aging also leads to slowing of cognitive processing, greater vulnerability to being distracted and difficulty with multitasking. This can lead to losing one's train of thought or not recalling something because we were distracted or not paying enough attention when we first heard it. When concentrating and paying careful attention, someone with age-associated symptoms should still be able to learn and recall new information well.

In the clinic, I focus on examples of the exact types of memory changes that are reported, and try whenever possible to get a 'second opinion' about how someone is doing from a spouse, adult child or friend. When someone provides a richly detailed description of their memory failings, I usually suspect an age-associated or general medical problem. In contrast, when someone does not recall much about the specific problems that their concerned spouse or family members

describe in detail, denies that there is much going on, or makes excuses for why they are having problems, that alerts me to suspect Alzheimer's disease.

**Brewer:** Currently, diagnosing AD in the clinic relies on a detailed history from the patient and family and testing cognitive function through a brief set of tests that measure how the patient performs a wide variety of skills. The primary distinction between AD, other disorders, and normal memory loss with aging comes from the pattern of cognitive and skill deficits that we see.

AD is not a normal part of aging, though, more often than not, elderly people who die of other causes will have some degree of AD pathology in their brains. It remains unknown why some people have only a little of this pathology in their brains with aging and other people have so much.

As physicians, we try to get a sense of the degree of memory loss and whether it appears to be progressing at a rate beyond that expected with normal aging. We usually perform bedside testing to gauge how well a patient retains information across a brief delay and distraction. If concerned, we might send the patient for more detailed testing of memory and other cognitive functions.

UC San Diego Health doctors are using 'volumetric MRI' to assess the degree of neurodegeneration in the brain. When a patient has a confirmed memory problem, we can use this kind of magnetic resonance imaging to assess whether the problem is accompanied by degeneration in the brain structures most affected by AD.

In special cases, we might sample the cerebrospinal fluid or use Positron Emission Tomography brain imaging for supportive evidence of a protein that accumulates in AD. These are all disease-related markers, called 'biomarkers,' that can help in determining which patients with memory problems will progress to dementia.

**Q:** Is there a specific age, symptom or marker that signals when one should be tested for memory loss and/or problematic dementia?

**Galasko:** Troubling and progressive memory disorders are a problem primarily among people aged 65 or older, although sometimes they can develop at a younger age. About two years ago, Medicare recommended that general physicians include screening for significant memory problems during an Annual Wellness Evaluation for everyone aged 65 or older. However, there is no quick, easy and accurate way to do so, and false positive screening can cause unnecessary distress and concern. A more focused approach is for someone with persistent memory lapses or cognitive changes that either they or others are concerned about to be screened and undergo medical evaluation if appropriate.

Many factors can take the edge off one's cognitive abilities, including depression, anxiety, poor sleep, medical illness such as hypothyroidism, and cognitive side effects of certain types of prescription drugs, as well as the aftermath of traumatic brain injury and stroke. An evaluation can

determine whether there are factors that may be reversible with appropriate treatment. If someone has trouble with remembering appointments, managing finances and paying bills, recalling conversations or material that they read or watch, these are clear alerts that an evaluation is necessary.

**Q:** The predictive power of current testing seems derive from their combined use. Is there value to just taking one or two of the tests? Is there a priority to taking them?



**Brewer:** The first step should be confirming the existence of a memory problem. As people age, they may become highly attuned to every slip in their memory, which can generate debilitating anxiety, especially if they have or had a family member with the disease. However, if we cannot confirm a true memory problem with cognitive testing, I think the value of proceeding with extensive biomarker testing is less certain.

In cases where the memory problem is confirmed, I think it is appropriate to use volumetric imaging to assess for evidence that supports neurodegeneration. If it is present, our data suggest the prognosis is poor, though some treatments might ameliorate the symptoms.

However, if there is no evidence to back a neurodegenerative cause of symptoms, then near-term prognosis can be quite good, and there certainly may be other, even curable, explanations for the patient's memory complaints. Testing for levels of the Alzheimer's protein, in my opinion, should only be performed in patients where both memory complaint and neurodegeneration are supported by evidence, since elevated levels of this protein are frequently seen and could easily be unrelated to the patient's on-going symptoms.

**Q:** Should everybody have a memory screening, even if they're not experiencing any memory issues or concerns?

**Brewer:** This is a very personal decision. There are some advantages to having an objective baseline with which to compare any change, should concerns crop up. If the screening detects a potential problem, research suggests that it will be best to intervene as early as possible, before significant brain damage accrues.

Even though we don't as yet have a cure in the form of a prescribed drug that targets Alzheimer's, there are actions that can be taken that could slow the progression of cognitive problems, such as keeping the brain's vasculature as healthy as possible through blood pressure control, smoking cessation, optimal diabetes management and, where appropriate, exercise.

**Q:** How do you persuade a family member or friend to be tested or treated if they don't perceive a problem or are resistant to the idea?

**Galasko:** Unfortunately, some people with significant memory problems are unwilling to seek help. They may make excuses, for example, blaming their hearing, or may deny any problem. People who have major memory loss are often unable to report accurately on the specifics of their problems. To overcome this resistance, it may be helpful for family members to emphasize that memory changes are common, undergoing a quick checkup will not be a big deal and testing by a health professional often helps to identify ways for people to function at their best. Physicians or other staff who interact with or test patients need to be sensitive to their concerns, reassure them that the testing is routine, brief, and that nobody scores perfectly when tested. It is often helpful to have family members leave the room during the testing.

**Q:** What are the prospects for a definitive test for AD?

**Brewer:** I think that a definitive test is very near. We have learned a great deal from our research on the disease and, though many mysteries remain, we have a sense of the biological processes associated with AD. We have been able to develop promising biomarkers, tests involving fluid samples or imaging, that will let us know if the pathology is present in a living person's brain and if that pathology is causing brain damage. The definitive diagnosis will likely come from a combination of imaging and biofluid tests that will supplement a careful and detailed history and physical exam.

**Q:** Is dementia inevitable? Can it be prevented?

**Galasko:** We don't know whether dementia would be inevitable if we all lived to (say) 120 or longer. Although the risk rises exponentially with age, and studies have shown that about 50 percent or more of people in their 90's have significant cognitive impairment, there are well-documented instances of people with excellent cognitive function at age 100 or even older.

Studies of the brains of people who underwent detailed testing during life, and died in their late 80's or older show that dementia is often related to mixed pathology — Alzheimer's pathology as well as vascular changes may interact. Also, based on pathology studies and on recent advances in brain imaging and testing that can identify Alzheimer changes in the brain, we know that Alzheimer's and other brain pathology builds up and precedes the onset of memory loss and dementia by a decade or longer. These findings raise hopes for prevention.

An important approach to prevention is to address vascular risk factors. Changes in lifestyle, including eating a heart-healthy diet and maintaining regular physical activity and appropriate use of medications to control blood pressure and diabetes may all be helpful. Although the benefits of vascular health interventions may be the greatest when started as early as age 50, addressing vascular risk is appropriate at any age. Another approach, specific for Alzheimer's prevention, is to

intervene against early Alzheimer brain pathology as early as possible. Many novel treatments are being developed and tested with the goal of decreasing the extent of Alzheimer pathology in the brain. In the past, treatments have been studied in people with symptomatic Alzheimer's disease. However, very early treatment may have the greatest benefit, before enough structural damage to the brain has occurred to cause impairment of memory and other cognitive processes.

**Q:** Are there advances in how people with memory complaints may undergo screening and evaluation?

**Galasko:** The UC San Diego Shiley-Marcos Alzheimer's Disease Research Center is playing a prominent role in two efforts to improve current practices. First, as part of the San Diego County Alzheimer's Project, we have spearheaded the development of guidelines and tools to help doctors or other care providers to screen people with memory complaints. The County Project is also preparing guidelines for evaluation. These will be made available to medical practices throughout San Diego in 2017. Second, with recently approved funding from the State of California, a group of Alzheimer Centers at academic medical centers across California is developing guidelines and materials to support screening and evaluation of memory problems. This will include tools and information to help physicians to make early and accurate diagnoses, and we are exploring how tests can be used through apps or computerized testing. These efforts recognize the diversity of Californians, and will include the translation of materials into Spanish. We also aim to roll out a number of initiatives to educate physicians and families about screening, diagnosis and treatment, and to improve the level of knowledge and care.

---

**To learn more about the featured medical specialties, please visit:**

[Memory Disorders Clinic](#)

[Neurological Institute](#)

[Psychiatry and Behavioral Health](#)

---