

An Alzheimer's primer

A specialist in the common brain disease offers ways to help reduce risk and ease the symptoms

► **The specialist:** Mary Sano, director of the Alzheimer's Disease Research Center at Mount Sinai

A neuropsychologist for more than two decades, Sano works with thousands of Alzheimer's patients and runs clinical trials to help them improve memory and cognition.

► **The big story:**

The death of screen legend Charlton Heston, whose funeral was last Saturday, has called attention to Alzheimer's disease, a brain disorder he battled. "The major risk factor for Alzheimer's is age," explains Sano, "so as we get older, we're all at risk, either for Alzheimer's or cognitive loss."

► **Who's at risk:**

Alzheimer's is an extremely common disorder that destroys brain cells and causes memory loss. Doctors estimate that more than 5 million Americans are living with the disorder.

Alzheimer's is very rare in people under 65, with an incidence of only 1% to 2%. But by the age of 85, 50% of people have developed the disease. The risk increases with aging, so "every decade, your likelihood goes up," says Sano.

Aging isn't something you can protect yourself against, but there are other lifetime risk factors you can try to avoid. Head injuries and conditions like diabetes and high cholesterol can leave you more vulnerable to Alzheimer's in old age.

In addition, "if your parents have a clear diagnosis below the age of 80," says Sano, "then we think you're at higher risk."

Gender and race aren't strong factors in determining who develops Alzheimer's, but there is a socioeconomic bias. "Economically disadvantaged groups are at a higher risk of having a lower education, and at higher risk of having serious head injuries," says Sano. The good news is that you can reduce your risk by staying active. "For any individual, physical and mental activity is associated with a reduced risk of cognitive loss and Alzheimer disease." Reading, joining a discussion group and doing crossword puzzles are all forms of cognitive activity that can keep your brain fit.

► **Signs and symptoms:**

The signature symptom of Alzheimer's is memory loss — in particular, short-term memory. A typical scenario is forgetting new information, then asking the same question repeatedly, unaware that it has already been asked. "This is different from

► **What you can do:**

Educate yourself.

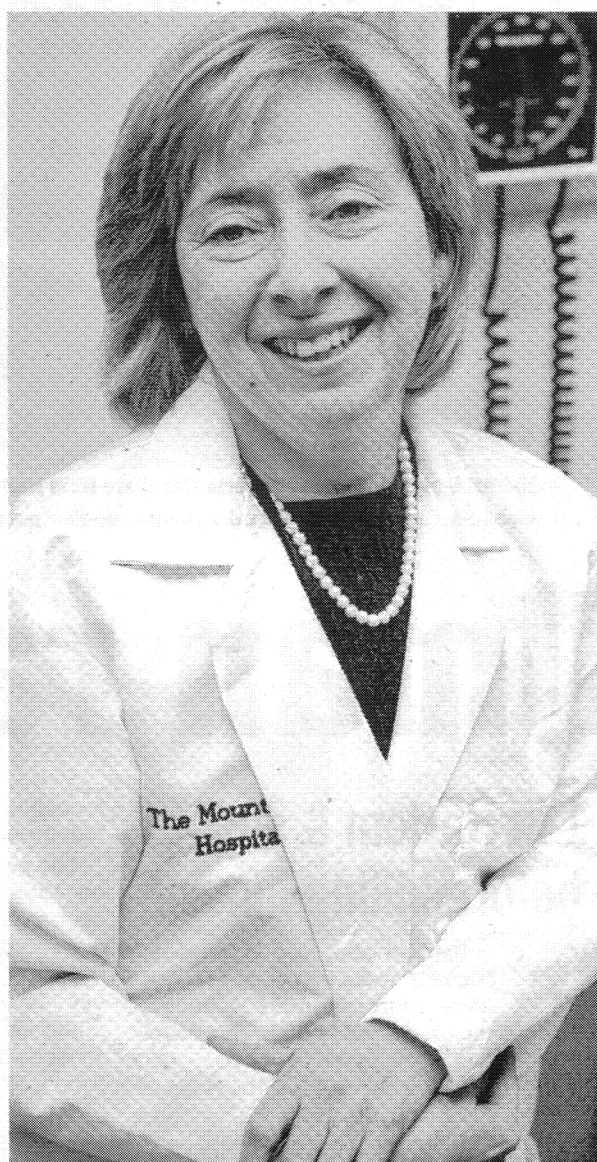
The two key resources are the Alzheimer's Association (www.alz.org) and the Alzheimer's Disease Education and Referral Center, or ADEAR (www.nia.nih.gov/alzheimers). "ADEAR has a great 1-800 number [1-800-438-4380] and wonderful brochures," Sano notes.

Take care of other health problems.

Other conditions — diabetes, high blood pressure, high cholesterol, depression and stress — can affect your memory, attention, organization and ability to plan. Taking care of your overall health can help keep your brain healthy.

Stay active physically, mentally and socially.

Keeping active is a good preventive measure. Try to get some exercise every day and to keep meeting new people. "There are some studies that show your ability to make new social connections in a good indicator of your ability to stay independent," says Sano.



Mount Sinai's Mary Sano is heading a study that aims to help those with the earliest stages of the disease.

ALLISON JOYCE

losing your keys and developing a strategy for how to overcome the problem," says Sano. "Alzheimer's patients have difficulty performing everyday tasks as a result of their memory loss."

This memory loss can manifest itself in trouble finding words or misnaming things, disorientation, not knowing the day or time or misplacing things. The disease can also cause a change in judgment or mood. "Often it's not that people feel sad," says Sano, "but they withdraw from the things they used to do."

Many times, it is easier for someone else to notice such gradual changes than for people to diagnose themselves. "The other thing that helps early detection is the family members," says Sano. "Frequently, they are the ones who can see when it's a change in behavior."

► **Traditional treatment:**

Diagnosis is the first step. "If the doctor seems unconcerned, it is worth seeing a specialist," says Sano. Once a person is diagnosed, doctors have treatments available to ease symptoms. For mild to moderate Alzheimer's, drugs called cholinesterase inhibitors allow a particular neuro-transmitter

BY THE NUMBERS

Someone develops Alzheimer's every **71** seconds.

5.2 million Americans live with Alzheimer's.

The cost of Alzheimer's amounts to more than **\$148** billion a year

71,696 Americans died of Alzheimer's in 2005, making it the **7th** leading cause of death.

Statistics from the Alzheimer's Association

(a chemical that helps transmit signals in the brain) to stay active longer by blocking the enzyme that breaks it down. A second kind of drug is an NMDA receptor antagonist, called memantine, which is approved for the treatment of patients with moderate to severe disease. "These drugs provide small symptomatic relief, but they are robust," says Sano.

In addition to medication, a good treatment plan will make sure that the patient is safe, and that a caregiver is helping him with daily activities and stay as active as possible.

► **Research breakthroughs:**

There is no cure for Alzheimer's, but doctors are looking for ways to change the course of the disease, not just treat its symptoms. "We believe that the neuropathology of Alzheimer's results from the accumulation of amyloid, a kind of protein," says Sano. Researchers are looking for ways to avoid that accumulation. "There are vaccine trials trying to attach to the amyloid and draw it out of the brain," says Sano.

Scientists are also looking for ways to detect the earliest signs of change, so that doctors can help people very early on. Sano is the national director of a study that will follow healthy people over the age of 75, assessing them in their homes. "We need to figure out how to measure people when they're still healthy," she explains. Eventually, doctors hope they'll be able to stop Alzheimer's before it starts.

► **Questions for your doctor:**

Sano advises that every patient be prepared to ask three basic questions: "What kind of tests could be done? What kind of treatments? What kind of followup?"

In many cases, a caregiver is in the best position to communicate with the doctor. Sano advises the caregiver to bring a full list of the medications the patient is taking. Ask "Are these all necessary?" and "Which ones go together?" Similarly, bring a list of symptoms to the doctor, and be sure you can relay the patient's past and current medical problems.

The ultimate question for many caregivers and patients is "What can we expect in terms of living independently?" The doctor can work with you to find a course of action. "One of the most important things is reassurance," says Sano. "The balance is between giving sufficient support while retaining some independence."