

# Research suggests it's possible to diagnose Alzheimer's disease earlier

**Chris Swingle** • Staff writer • August 17, 2010

Catherine Dinse still has her sense of humor, but Alzheimer's disease has taken much from the 90-year-old who raised nine children in Penfield.

On Sunday, daughter Kathleen Gefell, 49, of Irondequoit, sat with her arm around her mom in a locked memory care unit at the Jewish Home. "Some days there's a lot of crying and saying, 'I'm lost,'" said Gefell, who visits weekly. On this calm afternoon, her mom's eyes were frequently closed as the daughter talked to her and rubbed her arms. Occasionally the elder answered questions, saying she thought Gefell was her mother.

"It's a nasty disease," said Gefell. "Whatever they can find to fix it would be wonderful."

Gefell, other caregivers and Alzheimer's researchers draw hope from significant new findings that the disease can be diagnosed sooner, hoping the discoveries will lead to effective, earlier treatment. Among people in research studies, tests of spinal fluid and new PET scans of the brain have accurately identified the tangles and plaques that mark the memory-stealing disease. The latest international study of more than 500 subjects, published recently in the *Archives of Neurology*, found that three-quarters of the participants with mild cognitive impairment already had the distinctive proteins in their spinal fluid — and all of those patients with the proteins went on to develop Alzheimer's within five years.

Meanwhile, the National Institute on Aging and the Alzheimer's Association are working to revise the diagnostic criteria for Alzheimer's disease, the first update in 25 years. The first draft of the new guidelines was presented at an international conference in July. It calls for better capturing

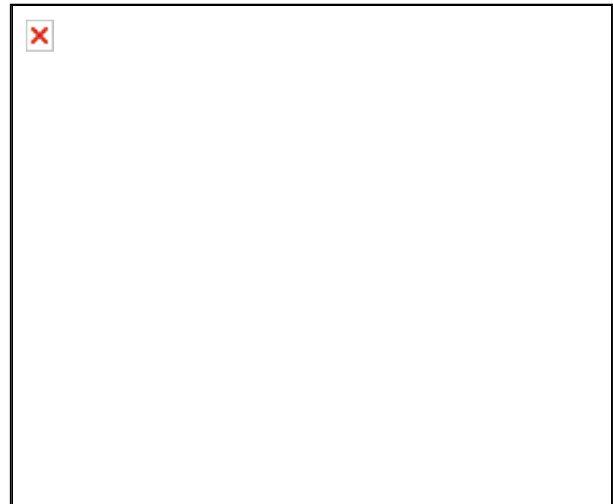
different stages of the disease and using biomarkers of the disease — substances that can be measured in cerebrospinal fluid or found through brain imaging such as PET scans and MRI scans. But for now, until the techniques are validated and standardized for broader use, neuroimaging and spinal taps are primarily for use in research settings.

The larger question remains: How useful is it to know a devastating disease is in your future when, so far, there is no cure and little that can be done?

If diagnostic testing becomes widely available, as expected, it will be up to doctors and patients whether to use them. Already, people with a family history of Alzheimer's disease can undergo genetic testing to see if they have the same gene mutation — but science and medicine are still trying to determine how to use that information to help patients. The Alzheimer's Association says that genetic testing should only be offered with pre- and post-test counseling and that people should consider how testing positive might affect eligibility for disability, long-term care and life insurance.

On the plus side, accurately predicting who will develop Alzheimer's can be useful now for getting the right people into research studies to better understand, treat and hopefully cure the condition, said Dr. Anton Porsteinsson, director of the Alzheimer's Disease Care, Research and Education Program at University of Rochester Medical Center. Also, people told to expect problems can prepare

Advertisement



Print Powered By  FormatDynamics™



and take steps toward a healthier lifestyle, such as a heart-healthy diet, exercise and staying mentally active, which may help. Someday, diagnosing patients before they're suffering clinical symptoms will likely be key to treatment because otherwise too much damage has occurred to reverse, he added.

"It's an exciting first step," said Mark Mapstone, a neuropsychologist at URM, of the recent study. Mapstone, associate director of the Memory Care Program at URM, also was struck by another finding in the latest study: Among seniors with no memory problems, 36 percent had the protein profile suggesting damage was happening in their brain, a significant part of the study group.

Mapstone is a co-investigator of another study trying to diagnose Alzheimer's early. The Rochester Aging Study, which involves the three large health systems in Monroe County, are using a blood test that examines the molecular composition of white blood cells. The goal is to develop a biomarker based on proteins in the blood, a less invasive test than a spinal tap.

Early diagnosis could provide relief in naming the condition, allow time for planning, and refine research by focusing promising treatments on people in the earliest stages, said Mapstone. But he, too, acknowledged it's not clear whether society is ready for such tests.

Pamela Yates of Wyoming, Wyoming County, is rooting for continued discoveries that lead to successful treatment. Her husband, Brock Yates, 76, former executive editor of *Car and Driver* magazine and a commentator on racing and vintage cars, was diagnosed with Alzheimer's about 3½ years ago.

"Hope is the ultimate medication, believe me," said Pamela Yates. She lost a son to a rare cancer when he was 27 and drew from the experience to write a book about faith and love. She said Brock — known for starting the Cannonball cross-country road race in the 1970s — wrote about Alzheimer's in a *Vintage Motorsports* column, which his daughter edits.

Gefell, who has helped care for her mother for about 10 years, said her mother lived on her own well into her 80s, and at first, her memory problems weren't obvious. For that reason, earlier diagnosis could have been helpful, she said. But for people without symptoms, the choice is less clear. "How much do

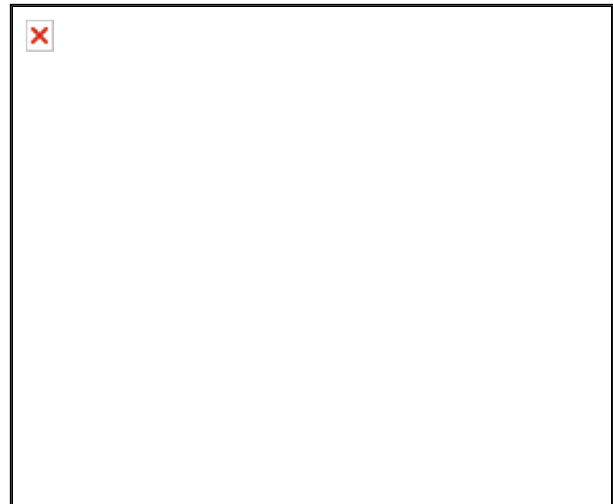
you want to know what your future is going to look like?" Gefell asked rhetorically.

Currently, imaging tests are used for some people with mild symptoms — troublesome memory lapses, slower decision making, problems with judgment — along with an examination, neurological exam and blood tests only to rule out other causes of memory impairment such as a stroke or tumor, said Porsteinsson, director of URM's Memory Disorders Clinic, located at Monroe Community Hospital.

He expects the new tests to become widely used. "I think this is basically a train that won't be stopped," said Porsteinsson. But first insurers will have to decide whether to cover them. A spinal fluid test could cost a couple of hundred dollars, or \$600 or more if the fluid is drawn with fluoroscopic guidance. The Belgian study is strong and convincing, said Porsteinsson, but more studies will be needed to validate the findings. Labs will have to standardize how spinal fluid is tested. Scans must be done by properly trained people. Porsteinsson couldn't estimate how long that all might take.

Some patients will want the information and others won't, said Dr. Brian Heppard, medical director at Jewish Senior Life, which includes the Jewish Home, and director of the Physician House Calls program that serves very frail, homebound seniors in the community. People found to have the disease can be offered medications that slow its progression — but they don't work very well and they only help some people, Heppard said.

Advertisement



Print Powered By FormatDynamics™

Some have suggested an Alzheimer's test could become common, like mammograms or colonoscopies. But Heppard said that spinal taps, brain scans or even a new blood test would only be appropriate as Alzheimer's screening tools if there are helpful steps that patients and their **health care** providers can take with the results.

[CSWINGLE@DemocratandChronicle.com](mailto:CSWINGLE@DemocratandChronicle.com)



[Purchase this Photo](#)

Kathleen Gefell, right, visits her mother, Catherine Dinse, weekly as Dinse deals with Alzheimer's disease. "Some days there's a lot of crying," says Gefell. (WILL YURMAN staff photographer)

**To learn more**

- Rochester Aging Study: (585) 275-6881.
- URMIC's Alzheimer's research: (585) 760-6550.

Advertisement

