

# Guideline: Test can help make diagnosis of Creutzfeldt-Jakob disease

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A new guideline released by the American Academy of Neurology may help doctors in making the diagnosis of Creutzfeldt-Jakob disease. The guideline is published in the September 19, 2012, online issue of *Neurology*.

Creutzfeldt-Jakob disease is a rare, always fatal brain disorder that involves quickly progressing dementia. New cases appear in about one person per million each year worldwide and confirming the [diagnosis](#) is challenging. People with the disease can have a wide range of symptoms. Many other conditions can cause similar symptoms, and with some of these conditions the dementia can be treated.

The guideline focused only on the diagnosis of sporadic Creutzfeldt-Jakob disease.

While several tests are available to help diagnose sporadic Creutzfeldt-Jakob disease, a brain biopsy is the most accurate test that can be performed on a person living with the disease. Brain biopsy is potentially dangerous.

The guideline examined the [diagnostic accuracy](#) of testing for a protein called 14-3-3 in the spinal fluid. The guideline authors reviewed all of the available evidence on the test, which included samples of 1,849 people with suspected sporadic Creutzfeldt-Jakob disease from nine studies.

They found that in cases where doctors strongly suspect Creutzfeldt-Jakob to be the cause of the dementia, the test can be helpful in reducing the [uncertainty](#) of the diagnosis. However, the test is not accurate enough to diagnose the disease with certainty or to rule it out completely. The test has a sensitivity of about 92 percent and a specificity of about 80 percent. Sensitivity is the percentage of patients with the disease who have a positive test result, and specificity is the percentage of patients who do not have the disease and who are correctly identified as having a negative test result.

The guideline determined that the 14-3-3 protein test can be useful when the [probability](#) of the person having Creutzfeldt-Jakob disease is between 20 percent and 90 percent.

"This means that if the physician considers the likelihood of Creutzfeldt-Jakob disease to be extremely low or extremely high, then testing for 14-3-3 protein would not be useful regardless of the result," said guideline author Taim Muayqil, MBBS, FRCPC, of King Saud University in Riyadh, Saudi Arabia, and a member of the American Academy of Neurology.

Muayqil noted that only doctors experienced in diagnosing [dementia](#) should determine whether the 14-3-3 [protein](#) test is needed and how results should be interpreted.

**More information:** [www.aan.com/guidelines](http://www.aan.com/guidelines)

Provided by American Academy of Neurology

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