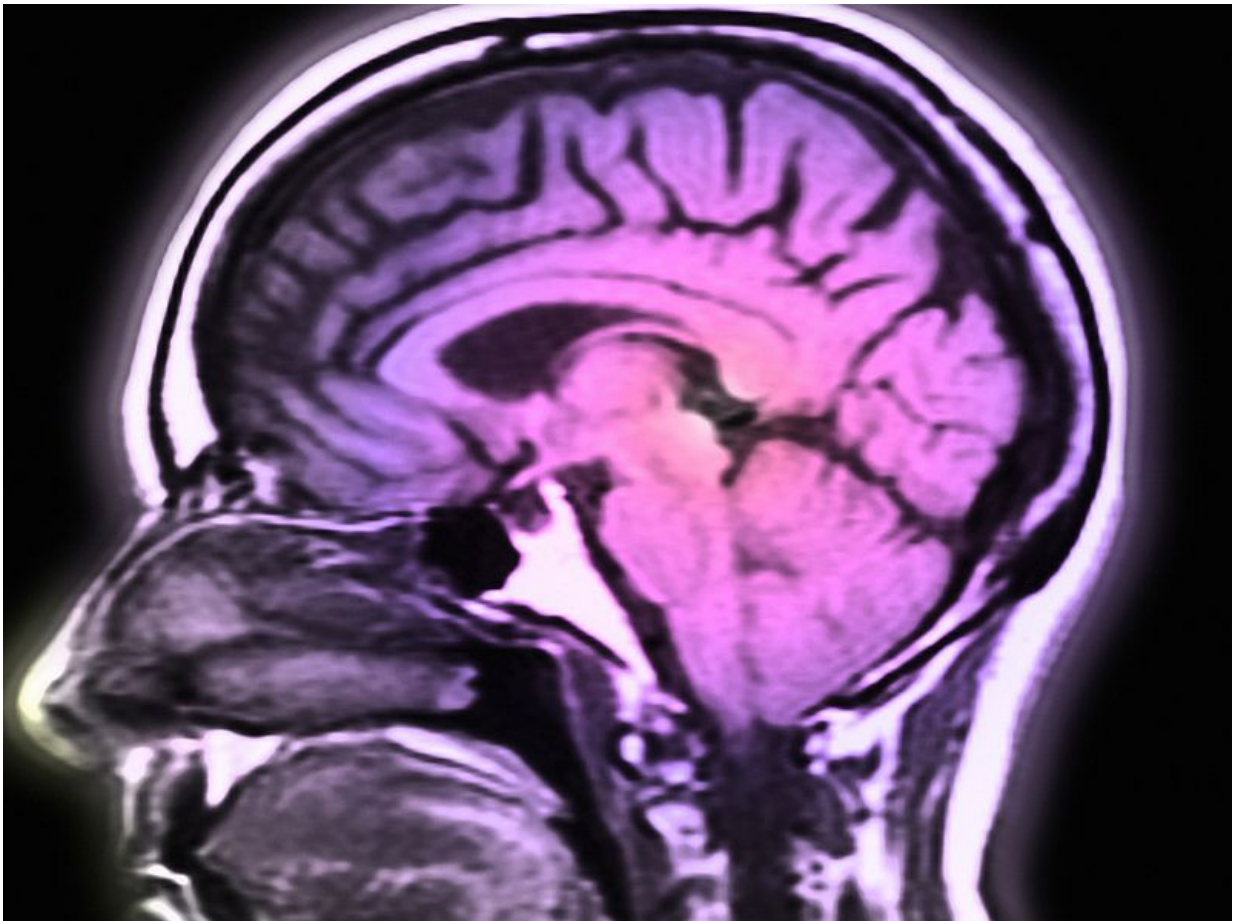


## CSF RT-QuIC has high diagnostic specificity, sensitivity for prions

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(HealthDay)—Cerebrospinal fluid (CSF) real-time quaking-induced

conversion (RT-QuIC) has high diagnostic specificity and sensitivity for prion diseases, according to a study published online Nov. 28 in the *Annals of Neurology*.

Aaron Foutz, from the Case Western Reserve University School of Medicine in Cleveland, and colleagues performed CSF RT-QuIC in 2,141 patients with rapidly progressive neurologic disorders. In 272 cases that were autopsied, the authors determined diagnostic sensitivity and specificity, and assessed the impact of mutations and polymorphisms in the *PRNP* gene.

The researchers found that CSF RT-QuIC had diagnostic specificity and sensitivity of 98.5 and 92 percent, respectively, in a blinded retrospective analysis, which matched the 100 percent [sensitivity](#) and 95 percent specificity of a blind prospective study. The CSF RT-QuIC differentiated 94 percent of cases of sporadic Creutzfeldt-Jakob disease (sCJD) MM1 from MM2 phenotype, and 80 percent of sCJD VV2 from VV1. Intermediate CSF RT-QuIC patterns were generated with the mixed prion type 1-2 and cases heterozygous for codon 129, while distinct profiles for each *PRNP* gene mutation were seen for genetic prion diseases.

"The diagnostic performance of the improved CSF RT-QuIC is superior to surrogate marker tests for [prion diseases](#) such as 14-3-3 and Tau proteins, and together with *PRNP* gene sequencing, the test allows the major prion subtypes to be differentiated in vivo," the authors write.

**More information:** [Full Text \(subscription or payment may be required\)](#)

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