

● Alzheimer's Disease and Dementia Testing

Neurofilament Light Chain (NfL)

Assess neuronal damage from neurodegenerative diseases, such as AD and multiple sclerosis, and traumatic brain injuries like those caused by concussions.



Neurofilament light (NfL) chain is **a neuron-specific protein** routinely released into the extracellular space of the brain.¹



Serum NfL levels rise above baseline in response to neuronal injury and neurodegeneration.¹⁻⁵



NfL has shown **utility as a biomarker across a wide range of neurodegenerative diseases.**⁶⁻⁸

NfL plays a role in many conditions including:

- Alzheimer's disease (AD)
- Parkinson disease
- Spinocerebellar ataxias
- Multiple sclerosis (MS)
- Amyotrophic lateral sclerosis (ALS)
- Traumatic brain injury (TBI)

Test code (ON)	Test name	Specimen type	Turnaround time
5641	Neurofilament Light Chain (NfL), Plasma	Blood	9 days

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References

1. Khalil M, Teunissen CE, Lehmann S, et al. Neurofilaments as biomarkers in neurological disorders — towards clinical application. *Nat Rev Neurol*. 2024;20(5):269–287. doi:10.1038/s41582-024-00955-x 2. Ashton NJ, Janelidze S, Khleifat AA, et al. A multicentre validation study of the diagnostic value of plasma neurofilament light. *Nat Commun*. 2021;12(1):3400. doi:10.1038/s41467-021-23620-z 3. Freedman MS, Gnanapavan S, Booth RA, et al. Guidance for use of neurofilament light chain as a cerebrospinal fluid and blood biomarker in multiple sclerosis management. *eBioMedicine*. 2024;101:104970. doi:10.1016/j.ebiom.2024.104970 4. Karantali E, Kazis D, McKenna J, et al. Neurofilament light chain in patients with a concussion or head impacts: a systematic review and meta-analysis. *Eur J Trauma Emerg Surg*. 2022;48(3):1555–1567. doi:10.1007/s00068-021-01693-1 5. Fundaun J, Kolski M, Molina-Álvarez M, et al. Types and concentrations of blood-based biomarkers in adults with peripheral neuropathies. *JAMA Netw Open*. 2022;5(12):e2248593. doi:10.1001/jamanetworkopen.2022.48593 6. Thebault S, Reaume M, Marrie RA, et al. High or increasing serum NfL is predictive of impending multiple sclerosis relapses. *Mult Scler Relat Disord*. 2022;59:103535. doi:10.1016/j.msard.2022.103535 7. Jack CR, Bennett DA, Blennow K, et al. NIA-AA Research Framework: toward a biological definition of Alzheimer's disease. *Alzheimers Dement*. 2018;14(4):535–562. doi:10.1016/j.jalz.2018.02.018 8. Mattsson N, Cullen NC, Andreasson U, et al. Association between longitudinal plasma neurofilament light and neurodegeneration in patients with Alzheimer's disease. *JAMA Neurol*. 2019;76(7):791–799. doi:10.1001/jamaneurol.2019.0765