



Inspiring action against Alzheimer's disease and dementia

In 2020, approximately 368,200 people were living with Alzheimer's disease in Canada, and this will increase to over 1.1 M by 2050 (a 203% increase from 2020)¹. As these numbers continue to grow, access to testing is essential. If patients at risk of developing dementias—including Alzheimer's disease (AD)—are identified in the early stages of disease, possible interventions could then be evaluated when they might be most effective.²



Navigate Alzheimer's disease and dementia testing with our expansive portfolio.

LifeLabs® is providing a portfolio of blood-based risk assessment offerings that can help provide a better understanding of a patient's potential risk for AD. Minimally invasive, blood-based biomarker (BBM) testing offers a promising pathway to transforming patient care, as it may enable earlier risk assessment, diagnosis, staging, and timely management.²

Blood-based testing with turnaround time 9–12 days

LifeLabs® ABeta 42/40 and p-tau217 Evaluation \$600	Evaluates plasma Aβ42/40 ratios and p-tau217 levels reporting out the likelihood that a symptomatic patient suspected of AD has a High, Indeterminant, or Low likelihood of amyloid pathology consistent with AD. ³	Test use: Patients showing mild cognitive impairment where AD is suspected.
LifeLabs® Phosphorylated tau217 (p-tau217) \$325	Determine levels of p-tau217 proteins, a dynamic and specific biomarker to aid in differentiating AD from other neurodegenerative diseases. ^{4,5}	Test use: Patients showing mild cognitive impairment where AD is suspected.
LifeLabs® Beta-Amyloid 42/40 Ratio \$300	Evaluate ratio of beta-amyloid 40 and 42 within plasma, one of the earliest biomarkers associated with AD. ⁶	Test use: Patients showing mild cognitive impairment where AD is suspected.
LifeLabs® Phosphorylated tau181 (p-tau181) \$300	Determine levels of p-tau181 proteins to assess cognitive decline in AD/MCI patients and correlates with amyloid and tau PET results. ^{7,8}	Test use: Patients showing mild cognitive impairment where AD is suspected.
LifeLabs® Apolipoprotein E (ApoE) Isoform \$175	Identify presence of ApoE isoforms within plasma, a strong genetic risk factor associated with AD, as well as risk of amyloid-related imaging abnormalities (ARIA). ⁹	Test use: One-time assessment for patients who may have a family history of late-onset AD.
LifeLabs® Neurofilament Light Chain (NfL) \$350	Determine levels of NfL to assess neuronal damage from neurodegenerative diseases, such as AD and multiple sclerosis, and traumatic brain injuries like those caused by concussions. ^{10,11}	Test use: Patients showing cognitive impairment where neuronal injury or neurodegeneration are suspected.
LifeLabs® Glial Fibrillary Acidic Protein (GFAP) \$300	Assess response to injury in neurological disorders or assess AD progression. ¹²	Test use: Patients showing cognitive impairment where neuronal injury or neurodegeneration are suspected

The **Alzheimer's Association 2025 Clinical Practice Guideline (CPG)** on the use of blood-based biomarkers (BBMs) in the diagnostic evaluation of suspected AD in specialized memory care settings recommends the following for patients presenting with cognitive impairment:

1. BBM tests with $\geq 90\%$ sensitivity and $\geq 75\%$ specificity can be used as a triaging test, and
2. BBM tests with $\geq 90\%$ sensitivity and specificity may be used as a substitute for amyloid PET imaging or CSF. A negative result rules out AD pathology with high probability. A positive result rules in AD pathology.

These tests do not serve as a substitute for comprehensive clinical evaluation by a healthcare professional and should be used only as part of a full diagnostic workup of patients, and with careful consideration of pretest probability of AD pathology.¹³

LifeLabs ABeta 42/40 and p-tau217 Evaluation has a 91% sensitivity and specificity allowing for triage and confirmation of Alzheimer's pathology.

The release of the Alzheimer's Association's first clinical practice guideline provides evidence-based recommendations supporting the use of specific blood-based biomarker tests in the diagnostic assessment of suspected AD with specialized memory-care settings.¹⁴ LifeLabs offers a p-tau217 and A β 42/40 evaluation panel with 91% sensitivity and specificity allowing you to triage, differentiate, or confirm Alzheimer's pathology.¹⁵

Rule in and rule out test

Patient with cognitive impairment presenting in specialized memory care setting

→ **Order LifeLabs ABeta 42/40 and p-tau217 Evaluation**

Panel components can be ordered separately. 10 day turnaround time.

Low likelihood:
< 0.3254

→ Amyloid PET positivity unlikely¹⁵ → Evaluate alternative causes

Indeterminate:
0.3254 – 0.6460

→ Consider amyloid PET, CSF test or repeat BBM in 1 year, depending on urgency¹⁶

High likelihood:
> 0.6460

→ Amyloid PET positivity likely¹⁵ → Diagnosis & treatment planning

As an industry leader, we're committed to advancing the science behind AD that can transform care pathways and outcomes for patients with cognitive health conditions.



See how our testing portfolio supports you and your patients along the Alzheimer's disease and dementia care pathway at [LifeLabs.com/alzheimers-disease](https://www.lifelabs.com/alzheimers-disease)

[Click here](#) to download requisition.

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Sign up

Patient sex, environment, and presence of other risk alleles also contribute to the risk of AD associated with ApoE genotype; determination of possible associations based on ethnic background or heritage needs further study.⁵

References: 1. Alzheimer's Society of Canada. Report 1: Navigating The Path Forward for Dementia in Canada. 2022. https://alzheimer.ca/sites/default/files/documents/Landmark-Study-Report-1-Path_Alzheimer-Society-Canada_0.pdf | 2. Hampel H, Hu Y, Cummings J, et al. Blood-based biomarkers for Alzheimer's disease: Current state and future use in a transformed global healthcare landscape. *Neuron*. 2023;111(18):2781-2799. doi:10.1016/j.neuron.2023.05.017 | 3. Schindler SE, Galasko D, Pereira AC, et al. Acceptable performance of blood biomarker tests of amyloid pathology – Recommendations from the Global CEO Initiative on Alzheimer's disease. *Nat Rev Neurol*. 2024;20(7):426-439. doi:10.1038/s41582-024-00977-5 | 4. Brickman AM, Manly JJ, Honig LS, et al. Plasma p-tau181, p-tau217, and other blood-based Alzheimer's disease biomarkers in a multi-ethnic, community study. *Alzheimers Dement*. 2021;17(8):1353-1364. doi:10.1002/alz.12301 | 5. Ashton NJ, Brum WS, Molfetta GD, et al. Diagnostic accuracy of a plasma phosphorylated tau 217 immunoassay for Alzheimer disease pathology. *JAMA Neurol*. 2024;81(3):255-263. doi:10.1001/jama.2023.5319 | 6. Nakamura A, Kaneko N, Villemagne V, et al. High performance plasma amyloid-B biomarkers for Alzheimer's disease. *Nature*. 2018;554(7691):249-254. doi:10.1038/nature25456 | 7. Brickman AM, Manly JJ, Honig LS, et al. Plasma p-tau181, p-tau217, and other blood-based Alzheimer's disease biomarkers in a multi-ethnic, community study. *Alzheimers Dement*. 2021;17(8):1353-1364. doi:10.1002/alz.12301 | 8. Lantero Rodriguez J, Karikari TK, Suárez-Calvet M, et al. Plasma p-tau181 accurately predicts Alzheimer's disease pathology at least 8 years prior to post-mortem and improves the clinical characterisation of cognitive decline. *Acta Neuropathol*. 2020;140(3):267-278. doi:10.1007/s00401-020-02195-x | 9. Farrer LA, Cupples LA, Haines JL, et al. Effects of age, sex, and ethnicity on the association between apolipoprotein E genotype and Alzheimer disease: a meta-analysis. *JAMA*. 1997;278(16):1349-1356. doi:10.1001/jama.1997.03550160069041 | 10. 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 | 11. 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 | 12. Jack CR, Jr., Andrews JS, Beach TG, et al. Revised criteria for diagnosis and staging of Alzheimer's disease: Alzheimer's Association Workgroup. *Alzheimers Dement*. 2024;20(8):5143-5169. doi:10.1002/alz.13859 | 13. Palmqvist S, Whitson HE, Allen LA, Suárez-Calvet M, Galasko D, Karikari TK, Okrahvi HR, Paczynski M, Schindler SE, Teunissen CE, Zetterberg H, Carrillo MC, Edelmayer RM, Mahinrad S, McAteer MB, Kahale LA, Pahlke S, Tampi MP. Alzheimer's Association Clinical Practice Guideline on the use of blood-based biomarkers in the diagnostic workup of suspected Alzheimer's disease within specialized care settings. *Alzheimers Dement*. 2025 Jul;21(7):e70535. doi:10.1002/alz.70535. PMID: 40729527; PMCID: PMC12306682 | 14. Palmqvist S, Whitson HE, Allen LA, Suárez-Calvet M, Galasko D, Karikari TK, Okrahvi HR, Paczynski M, Schindler SE, Teunissen CE, Zetterberg H, Carrillo MC, Edelmayer RM, Mahinrad S, McAteer MB, Kahale LA, Pahlke S, Tampi MP. Alzheimer's Association Clinical Practice Guideline on the use of blood-based biomarkers in the diagnostic workup of suspected Alzheimer's disease within specialized care settings. *Alzheimers Dement*. 2025 Jul;21(7):e70535. PMID: 40729527; PMCID: PMC12306682 | 15. Weber DM, Stroh MA, Taylor SW, Lagier RJ, Louie JZ, Clarke NJ, Vaillancourt DE, Rayaprolu S, Duara R, Racke MK. Development and clinical validation of blood-based multi-biomarker models for the evaluation of brain amyloid pathology. *medRxiv*. 2025. doi:10.1101/2025.02.27.25322892 | 16. Schindler SE, Galasko D, Pereira AC, et al. Acceptable performance of blood biomarker tests of amyloid pathology – recommendations from the Global CEO Initiative on Alzheimer's Disease. *Nat Rev Neurol*. 2024;20(7):426-439. doi:10.1038/s41582-024-00977-5