

APOE Gene Test Results & Risk Information

This sheet summarizes the APOE Gene Test information provided to you as part of screening for the Generation Study 1. It should be attached to the Standardized APOE Risk Information handout used during your visit.

Genetic Testing Result: Your *APOE* gene test result is: **e2/e2**

Risk Information for Mild Cognitive Impairment or Dementia due to Alzheimer's Disease:

- The e2 form of APOE is rare, which means that we have less data available on individuals with e2 and their risk of developing mild cognitive impairment (MCI) or dementia due to Alzheimer's disease.
- Available data suggests that the e2 type is associated with a reduced risk of MCI or dementia due to Alzheimer's disease. Therefore, we estimate that your risk through age 85 of developing MCI or dementia due to Alzheimer's disease may be slightly lower than the e3/e3 risk of 10-15%.
- Unfortunately, we do not have enough data available on individuals with the e2/e2 result to calculate a more exact risk estimate.

It is important to remember that there are other factors, besides APOE, that could increase or decrease risk when estimating an individual's risk for MCI or dementia due to Alzheimer's disease.

Please Note: An APOE result of e2/e2 is associated with an increased risk of hyperlipoproteinemia type III, a rare condition impacting cholesterol and cardiovascular health. It may be advisable to consult with a cardiologist if you have questions or concerns about this risk.

Limitations of the risk estimates:

- There is a wide range of information regarding the APOE gene's impact on the risk of Alzheimer's disease; other studies may have reported higher or lower risks related to the APOE gene. The risk information that we provided you is our best estimate at this time and is based on one large study.
- The risk information we are sharing with you is drawn from studies in which the majority of participants were White. We do not know if the risks are similar for all racial and ethnic groups.

Resources:

Please refer to the slide titled "For More Information" in your packet for a list of resources that may provide you with additional information and support.

Questions:

If you have any questions about any of the information presented in this document, please contact:

Langlois CM, Bradbury A, Wood EM, Roberts JS, Kim SYH, Riviere ME, Liu F, Reiman EM, Tariot PN, Karlawish J, Langbaum JB. Alzheimer's Prevention Initiative Generation Program: Development of an *APOE* genetic counseling and disclosure process in the context of clinical trials. *Alzheimer's Dement* (N Y). 2019 Nov 6;5:705-716. doi: 10.1016/j.trci.2019.09.013.

The Generation Program was funded by Novartis and Amgen, in collaboration with the Banner Alzheimer's Institute. Generation Study 1 was supported by funding from the National Institute on Aging (1UF1AG046150), part of the National Institutes of Health, as well as the Alzheimer's Association, FBRI, GHR Foundation and Banner Alzheimer's Foundation.