

APOE Gene Test Results & Risk Information

This sheet summarizes the APOE Gene Test results 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 / e3r (rare e3)**

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

- The e2 form of the APOE gene is rare and the e3r form is even rarer. We have no data available on individuals with the e2/e3r (rare e3) type 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. However, nothing is known about the e3r (rare e3) variant and risk of MCI or dementia due to Alzheimer's disease. Therefore, we do not know how your risk through age 85 of developing MCI or dementia due to Alzheimer's disease may compare to someone with the e3/e3 result. The risk of developing dementia due to Alzheimer's disease for someone with the e3/e3 result is 10-15%.
- Unfortunately, we do not have enough data available on individuals with the e2/e3r (rare e3) result to calculate a 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.

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.

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