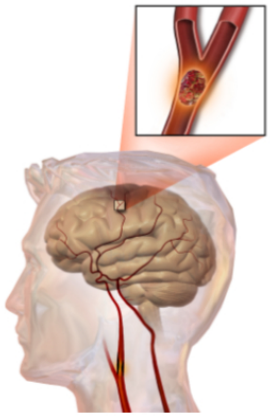
03/2018

Stroke (Malik, 2018)

Rainer Malik, et al.
Nature Genetics

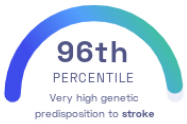
Vasculature | Brain



STUDY SUMMARY

The risk of strokes is associated with genetic variants that are also linked to various cardiovascular traits.

YOUR RESULT



STUDY DESCRIPTION

Strokes are the second leading cause of death worldwide. They are the sudden deprivation of oxygen and blood flow to the brain, resulting in the death of brain cells. A large part of a person's risk of experiencing strokes can be traced to genetics. This study examined genetic variants linked to stroke in over 520,000 subjects. Almost half of the variants found in the study were linked to various cardiovascular traits.

DID YOU KNOW?

In order to prevent a stroke from occurring, you should lower your blood pressure, have no more than one glass of alcohol a day, and exercise at a moderate intensity at least 5 days a week.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to stroke we summed up the effects of genetic variants that were linked to stroke in the study that this report is based on. These variants can be found in the table below. The variants highlighted in green have **positive effect sizes** and increase your genetic predisposition to stroke. The variants highlighted in blue have **negative effects sizes** and decrease your genetic predisposition to stroke. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to stroke. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for stroke to be 1.99**. To determine whether your score is high or low, we compared it to the scores of 5,000 other Nebula Genomics users. We found that your polygenic score for stroke is in the **96th percentile**. This means that it is higher than the polygenic scores 96% of people. We consider this to be a **very high genetic predisposition to stroke**. However, please note that genetic predispositions do not account for important non-genetic factors like lifestyle. Furthermore, the genetics of most traits has not been fully understood yet and many associations between traits and genetic variants remain unknown. For additional explanations, click on the column titles in the table below and visit our Nebula Library tutorial.

VARIANT	YOUR GENOTYPE	EFFECT SIZE	VARIANT FREQUENCY	SIGNIFICANCE
rs13143308_T	G / G	0.28 (–)	28%	1.86×10^{-47}
rs12932445_C	T / C	0.18 (↑)	21%	6.86×10^{-18}
rs2107595_A	G / A	0.19 (↑)	24%	3.65×10^{-16}
rs3184504_T	T / C	0.08 (↑)	45%	2.17×10^{-14}
rs1052053_G	A / A	0.06 (–)	40%	2.70×10^{-14}
rs17612742_C NEW	T / C	0.17 (↑)	21%	1.46×10^{-11}
rs12445022_A	A / A	0.06 (↑)	31%	1.05×10^{-10}
rs2295786_A NEW	A / T	0.05 (↑)	60%	1.80×10^{-10}
rs880315_C NEW	T / T	0.05 (–)	40%	3.62×10^{-10}
rs7859727_T NEW	C / C	0.05 (–)	53%	4.22×10^{-10}
rs9526212_G NEW	G / G	0.06 (↑)	76%	5.03×10^{-10}
rs6825454_C NEW	T / C	0.06 (↑)	31%	7.43×10^{-10}
rs4959130_A	G / G	0.08 (–)	14%	1.42×10^{-9}
rs6891174_A NEW	A / A	0.10 (↑)	35%	5.82×10^{-9}
rs42039_C NEW	C / T	0.07 (↑)	77%	6.55×10^{-9}
rs11957829_A NEW	A / A	0.07 (↑)	82%	7.51×10^{-9}
rs12124533_T	C / T	0.16 (↑)	24%	1.22×10^{-8}
rs16896398_T NEW	A / T	0.05 (↑)	34%	1.30×10^{-8}
rs12037987_C NEW	T / C	0.07 (↑)	16%	2.73×10^{-8}
rs35436_C NEW	C / C	0.05 (↑)	62%	2.87×10^{-8}
rs4932370_A NEW	G / A	0.05 (↑)	33%	2.88×10^{-8}
rs2005108_T	C / C	0.08 (–)	12%	3.33×10^{-8}
rs8103309_T NEW	T / T	0.05 (↑)	65%	3.40×10^{-8}
rs2229383_T NEW	T / T	0.05 (↑)	65%	4.72×10^{-8}
rs11867415_G NEW	A / A	0.09 (–)	18%	4.81×10^{-8}
rs7304841_A NEW	C / C	0.05 (–)	59%	4.93×10^{-8}