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Migraine (Anttila, 2013)

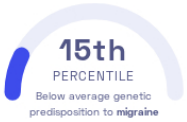
Verneri Anttila, et al.
Nature Genetics

Brain Mind

STUDY SUMMARY

Identification of genetic variants associated with migraines and synaptic function.

YOUR RESULT



STUDY DESCRIPTION

Migraines are recurring headaches characterized by severe pain, nausea, and sensitivity to light and sound. A migraine is the most common brain disorder, affecting 14% of adults. Currently, few genetic factors that associate with an increased predisposition to migraines have been found. This genome-wide association study identified 12 migraine-associated genetic variants, of which 5 are novel, by examining over 100,000 individuals of European ancestry. Most of the discovered variants are located in or near genes that play a role in synaptic function. Synapses are connections between brain cells that pass signals and enable communication.

DID YOU KNOW?

Limiting stress, exercising, as well as sticking to a regular sleep and eating schedule may help prevent migraines from occurring.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to migraine we summed up the effects of genetic variants that were linked to migraine 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 migraine. The variants highlighted in blue have **negative effects sizes** and decrease your genetic predisposition to migraine. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to migraine. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for migraine to be -0.21**. 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 migraine is in the **15th percentile**. This means that it is higher than the polygenic scores 15% of people. We consider this to be a **below average genetic predisposition to migraine**. 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
rs11172113_C	T / T	-0.11 (–)	43%	2.69×10^{-19}
rs2651899_C	C / C	0.09 (↑)	41%	3.28×10^{-14}
rs12134493_A NEW	C / C	0.13 (–)	46%	6.71×10^{-14}
rs7577262_A	G / G	-0.14 (–)	10%	3.27×10^{-13}
rs13208321_A NEW	G / G	0.17 (–)	22%	2.15×10^{-12}
rs9349379_G	A / G	-0.15 (↓)	40%	2.81×10^{-10}
rs6478241_A	A / G	0.15 (↑)	38%	1.04×10^{-9}
rs4379368_T NEW	C / C	0.10 (–)	12%	1.46×10^{-9}
rs10504861_T NEW	C / T	-0.15 (↓)	16%	1.32×10^{-8}
rs6790925_T	C / C	0.14 (–)	38%	2.16×10^{-8}
rs10915437_G NEW	G / G	-0.15 (↓)	36%	2.81×10^{-8}
rs2274316_C	C / A	0.07 (↑)	37%	3.14×10^{-8}