

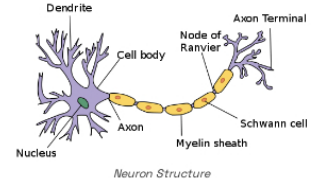
★ **Migraine without aura (Freilinger, 2012)**

Tobias Freilinger, et al.
Nature Genetics

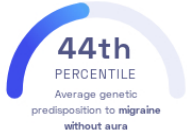
Mind Brain

STUDY SUMMARY

Migraine without aura may be influenced by genetic variants that affect neuronal signaling, migration, and growth.



YOUR RESULT



STUDY DESCRIPTION

Migraine without aura, also called the common migraine, is characterized by recurring, painful headaches. It does not have the early symptoms (aura) that other types of migraines have, such as dizziness, prickling skin, or weakness. Migraines appear to be heritable, yet few genetic variants have been discovered. This study identified several genetic variants associated with migraines without aura in 6,906 German and Dutch individuals, the most significant of which were in the MEF2D, PHACTR1, and ASTN2 genes, as well as one near the TGFBR2 gene. MEF2D is highly expressed in the brain and helps neurons form and send signals. PHACTR1 plays a role in synaptic activity (synapses allow neurons to pass signals to other cells). The product of the ASTN2 gene helps neurons move guided by glial cells, which are cells that surround neurons and provide support. Finally, the TGFBR2 gene regulates cell division and growth and has been previously reported as being linked with migraines.

DID YOU KNOW?

Avoiding loud noises, bright lights, and stress, in addition to eating and sleeping on a regular schedule, may help prevent migraines.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to migraine without aura we summed up the effects of genetic variants that were linked to migraine without aura 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 without aura. The variants highlighted in blue have **negative effects sizes** and decrease your genetic predisposition to migraine without aura. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to migraine without aura. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for migraine without aura to be -0.07**. 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 without aura is in the **44th percentile**. This means that it is higher than the polygenic scores 44% of people. We consider this to be an **average genetic predisposition to migraine without aura**. 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 [Ⓞ]
rs10166942_C	T / C	-0.25 (↓)	18%	9.83 x 10 ⁻¹³
rs3790455_C NEW	C / T	0.18 (↑)	34%	7.06 x 10 ⁻¹¹
rs7640543_A NEW	G / G	0.17 (-)	32%	1.17 x 10 ⁻⁹
rs11172113_C	T / T	-0.15 (-)	40%	2.97 x 10 ⁻⁸
rs9349379_G NEW	A / G	-0.15 (↓)	38%	3.20 x 10 ⁻⁸
rs6478241_A NEW	A / G	0.15 (↑)	38%	3.86 x 10 ⁻⁸