

☆ Posttraumatic stress disorder (Maihofer, 2021)

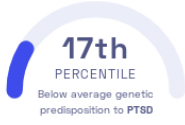
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Biological Psychiatry

Mind Behavior

STUDY SUMMARY

This report is based on a study that discovered 5 genetic variants associated with posttraumatic stress disorder.

YOUR RESULT



STUDY DESCRIPTION

Posttraumatic stress disorder (PTSD) is a condition that affects individuals who have experienced a traumatic event. Though commonly associated with experiencing wars, PTSD can also result from experiencing events such as natural disasters, car accidents, sexual violence, and many others. Individuals with PTSD often have disturbing thoughts and feelings related to their traumatic experiences. These persist long after the traumatic event and are often relived through flashbacks or nightmares. As a result, those affected by PTSD often try to avoid situations that remind them of the traumatic event. This genome-wide association study sought to identify genetic associations that predispose individuals to PTSD by examining more than 315,000 individuals of European ancestry. The researchers identified 5 genetic variants that are linked with an individual's predisposition to PTSD. One of the variants was near a gene known as GABBR1. It encodes the instructions for the production of a neurotransmitter, a molecule whose role is to communicate signals in the nervous system.



PTSD can severely impact mental and physical health.

DID YOU KNOW?

On average 8 of every 100 people will have PTSD at some point in their lives. Women are more likely to experience PTSD. Approximately 10 out of every 100 women and 4 out of every 100 men experience PTSD.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to PTSD we summed up the effects of genetic variants that were linked to PTSD 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 PTSD. The variants highlighted in blue have **negative effect sizes** and decrease your genetic predisposition to PTSD. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to PTSD. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for PTSD to be -10.87**. 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 PTSD is in the **17th percentile**. This means that it is higher than the polygenic scores 17% of people. We consider this to be a **below average genetic predisposition to PTSD**. 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 [ⓘ]	GENE [ⓘ]	EFFECT SIZE [ⓘ]	VARIANT FREQUENCY [ⓘ]	SIGNIFICANCE [ⓘ]
rs72657988_T	G / G	Intergenic	6.44 [-]	8%	1.20×10^{-10}
rs146918648_A	NA	GABBR1	6.04 [-]	4%	1.50×10^{-9}
rs10821140_A	C / C	MPP6	-5.71 [-]	35%	1.20×10^{-8}
rs10266297_T	C / C	FOXP2	5.38 [-]	59%	7.40×10^{-8}
rs2721816_A	A / A	FAM120A	-5.27 [↓]	82%	1.40×10^{-7}

N/A indicates variants that could not be imputed using the 1000 genomes project datasets and variants that have a frequency of < 5%. Your genome was sequenced at 30x/100x coverage and is not imputed. However, to calculate percentiles, we need to compare your data with other users imputed data. To make the data comparable, we need to exclude some of the variants from your data.