

☆ Post-traumatic stress disorder (Gelernter, 2019)

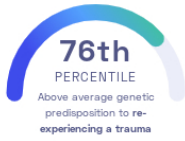
Joel Gelernter, et al.
Nature Neuroscience

Mind

STUDY SUMMARY

This study identified eight new loci associated with re-experiencing post-traumatic stress disorder (PTSD) trauma.

YOUR RESULT



STUDY DESCRIPTION

Post-traumatic stress disorder (PTSD) is a psychiatric disorder that can occur when individuals experience or witness a traumatic event such as a natural disaster, a serious accident, or violence. Re-experiencing the trauma is the most characteristic symptom of PTSD. While many factors influence the development of PTSD, genetic variants may lead to an increased predisposition of developing the disorder. To identify possible genetic risk factors for re-experiencing a trauma, this genome-wide association study examined 164,643 African American and European American veterans. Eight variants were found to be linked to re-experiencing PTSD trauma, explaining less than 1% of the heritability. Regions near the CAMKV, KANSL1, and TCF4 genes were particularly significant. CAMKV was previously associated with educational attainment and TCF4 is known to be associated with schizophrenia.



DID YOU KNOW?

There are various psychiatric therapies that can help treat PTSD. Most therapies require the patient to confront and discuss the trauma. Medications such as antidepressants are prescribed as well.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to re-experiencing a trauma we summed up the effects of genetic variants that were linked to re-experiencing a trauma 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 re-experiencing a trauma. The variants highlighted in blue have **negative effect sizes** and decrease your genetic predisposition to re-experiencing a trauma. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to re-experiencing a trauma. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for re-experiencing a trauma to be -0.09**. 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 re-experiencing a trauma is in the **76th percentile**. This means that it is higher than the polygenic scores 76% of people. We consider this to be an **above average genetic predisposition to re-experiencing a trauma**. 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 [Ⓞ]
rs2777888_G	A / A	0.11 (-)	40%	2.07×10^{-11}
rs2123392_C	T / T	0.11 (-)	30%	5.38×10^{-11}
rs2532252_G	G / G	0.12 (↑)	23%	4.60×10^{-10}
rs7519147_T	C / T	-0.10 (↓)	49%	1.29×10^{-9}
rs10235664_C	T / T	-0.11 (-)	35%	3.09×10^{-9}
rs4697248_C	T / C	0.10 (↑)	37%	3.73×10^{-9}
rs7688962_A	A / A	-0.13 (↓)	80%	1.34×10^{-8}
rs67529088_C	G / C	-0.09 (↓)	36%	3.32×10^{-8}