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Attention-deficit/hyperactivity Disorder (Demontis, 2018)

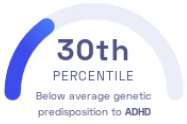
Ditte Demontis, et al.
Nature Genetics

Mind

STUDY SUMMARY

12 novel loci have been associated with ADHD in a genome-wide association study of 55,374 individuals.

YOUR RESULT



STUDY DESCRIPTION

Attention-deficit/hyperactivity Disorder (ADHD) is a common behavioral disorder that typically affects a person's ability to pay attention and control impulsive behaviors. The risk of ADHD is determined by a variety of different genetic and environmental influences. In this genome-wide association study, 12 loci associated with ADHD were identified by examining 55,374 individuals of European ancestry. These loci explain about 22% of the heritability of ADHD. Associations were enriched around genes that are active in the brain as well as conserved genomic regions. The study also observed a genetic correlation of ADHD with reduced educational attainment and depression.

DID YOU KNOW?

A misconception surrounding ADHD is that this disorder is directly correlated with violent tendencies.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to ADHD we summed up the effects of genetic variants that were linked to ADHD 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 ADHD. The variants highlighted in blue have **negative effects sizes** and decrease your genetic predisposition to ADHD. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to ADHD. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for ADHD to be -0.38**. 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 ADHD is in the **30th percentile**. This means that it is higher than the polygenic scores 30% of people. We consider this to be a **below average genetic predisposition to ADHD**. 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
rs1427829_A NEW	A / G	0.08 (↑)	43%	1.82×10^{-9}
rs212178_A NEW	G / A	-0.12 (↓)	88%	7.68×10^{-9}
rs28411770_T NEW	T / T	0.09 (↑)	65%	1.15×10^{-8}
rs11591402_A NEW	A / A	-0.09 (↓)	22%	1.34×10^{-8}
rs74760947_A NEW	A / G	-0.18 (↓)	96%	1.35×10^{-8}
rs9677504_A NEW	G / G	0.12 (–)	11%	1.39×10^{-8}
rs4916723_A NEW	A / A	-0.08 (↓)	57%	1.58×10^{-8}
rs4858241_T NEW	T / G	0.08 (↑)	62%	1.74×10^{-8}
rs281324_T NEW	T / C	-0.07 (↓)	53%	2.68×10^{-8}
rs1222063_A NEW	G / G	0.10 (–)	33%	3.07×10^{-8}