

☆ Fraternal twinning (Mbarek, 2016)

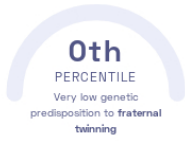
Hamdi Mbarek, et al.
American Journal of Human Genetics

Pregnancy

STUDY SUMMARY

Discovery of 3 genetic variants that are associated with spontaneous fraternal twinning.

YOUR RESULT



STUDY DESCRIPTION

If you walk past 30 people in the United States, the odds are good that at least one of them will have a twin brother or sister. Travel to many areas of Asia and that number rockets to 70 people, but visit the west African country of Benin and you may only need to walk past 16 people to see a twin. Twins can either be identical or fraternal, but the genetic factors that may influence a woman's chances of having either type are not well understood. This study examined the genetic data of nearly 15,000 mothers of European ancestry to identify variants associated with fraternal twinning. The study found 3 variants that together increase a woman's odds of delivering twins by over 50%. One is located near a gene that produces FSH, a *hormone* involved in the development of eggs inside a woman's ovaries.

DID YOU KNOW?

Women over the age of 30 have an increased chance of giving birth to twins. This is likely because levels of FSH increase as women age.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to fraternal twinning we summed up the effects of genetic variants that were linked to fraternal twinning 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 fraternal twinning. The variants highlighted in blue have **negative effect sizes** and decrease your genetic predisposition to fraternal twinning. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to fraternal twinning. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for fraternal twinning to be 0.00**. 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 fraternal twinning is in the **0th percentile**. This means that it is higher than the polygenic scores 0% of people. We consider this to be a **very low genetic predisposition to fraternal twinning**. 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 [ⓘ]
rs11031006_G	A / A	0.34 (-)	85%	1.54×10^{-9}
rs17293443_C	T / T	0.24 (-)	24%	1.57×10^{-8}
rs12064669_C	T / T	0.36 (-)	10%	1.23×10^{-8}