

☆ Mosquito bite frequency (Jones, 2017)

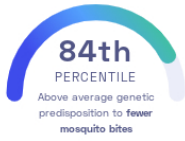
Amy Jones, et al.
Human Molecular Genetics

Infection Skin

STUDY SUMMARY

Discovery of 3 genetic variants that are associated with attractiveness to mosquitoes.

YOUR RESULT



STUDY DESCRIPTION

There are many enjoyable aspects of spending time outdoors during the summer: campfires, stargazing, and picnics are just a few. Unfortunately, trying to enjoy those long, warm days also means having to contend with mosquitoes trying to feast on you. In addition to being a nuisance and causing itchy bites, mosquitoes are known to transmit many serious diseases, like malaria. But, have you ever wondered why it seems like mosquitoes seem to pick on certain people while leaving others alone? This genome-wide association study examined over 16,500 individuals of European ancestry to determine what makes some people more prone to mosquito bites. The study linked 3 genetic variants to attractiveness to mosquitoes. These variants are near genes that play a role in the immune system and odor production, which may explain how they affect proneness to mosquito bites.

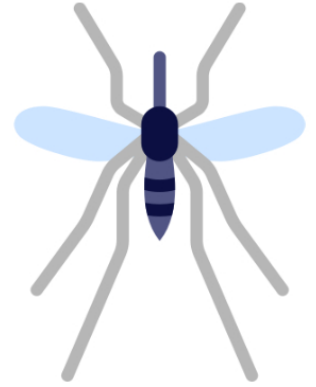
DID YOU KNOW?

Mosquitoes shouldn't hold you back from enjoying your time outdoors! Environmental Protection Agency (EPA)-registered insect repellents are endorsed to be safe and effective, and covering up with long-sleeve shirts and pants can also help keep these pesky bugs away.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to fewer mosquito bites we summed up the effects of genetic variants that were linked to fewer mosquito bites 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 fewer mosquito bites. The variants highlighted in blue have **negative effect sizes** and decrease your genetic predisposition to fewer mosquito bites. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to fewer mosquito bites. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for fewer mosquito bites to be 0.62**. 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 fewer mosquito bites is in the **84th percentile**. This means that it is higher than the polygenic scores 84% of people. We consider this to be an **above average genetic predisposition to fewer mosquito bites**. 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 [Ⓞ]
rs309403_T NEW	T / T	0.24 (↑)	39%	6.80×10^{-23}
rs1858074_G NEW	A / A	0.15 (-)	32%	2.40×10^{-9}
rs9268650_T NEW	T / C	0.14 (↑)	42%	3.60×10^{-9}



Mosquitos kill more humans than any other animal due to the diseases that they transmit.