

★ Kawasaki disease (Onouchi, 2012)

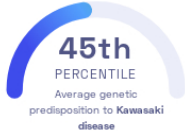
Yoshihiro Onouchi, et al.
Nature Genetics

Inflammation Vasculature

STUDY SUMMARY

Identification of 3 genetic variants associated with Kawasaki disease, which causes inflammation and swelling of blood vessels.

YOUR RESULT



STUDY DESCRIPTION

Kawasaki disease is characterized by sudden inflammation and swelling of blood vessels throughout the body that typically persists for several days. It primarily affects children under the age of 5, but cases of Kawasaki disease in adults have also been described. A typical symptom of Kawasaki disease is redness that affects various parts of the body including eyes, tongue, and skin. Kawasaki disease is common in parts of East Asia, particularly Japan. By examining almost 4,000 children of Japanese ancestry, this genome-wide association study identified 3 genetic variants associated with Kawasaki disease. Two of these genetic variants are within genomic regions previously associated with autoimmune diseases, such as rheumatoid arthritis and systemic lupus erythematosus.



Redness of eyes, lips and tongue are characteristic symptoms of Kawasaki disease.

DID YOU KNOW?

For children in the United States, Kawasaki disease is the leading cause of acquired heart disease.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to Kawasaki disease we summed up the effects of genetic variants that were linked to Kawasaki disease 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 Kawasaki disease. The variants highlighted in blue have **negative effects sizes** and decrease your genetic predisposition to Kawasaki disease. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to Kawasaki disease. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for Kawasaki disease to be 2.07**. 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 Kawasaki disease is in the **45th percentile**. This means that it is higher than the polygenic scores 45% of people. We consider this to be an **average genetic predisposition to Kawasaki disease**. 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 [ⓘ]
rs2254546_G	A / G	0.62 (↑)	83%	8.20×10^{-21}
rs2857151_G	G / G	0.39 (↑)	67%	4.60×10^{-11}
rs4813003_C	C / C	0.34 (↑)	58%	4.80×10^{-8}