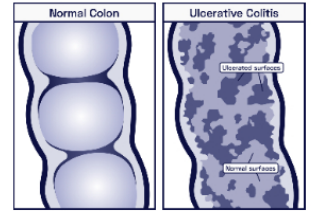


☆ **Ulcerative colitis (Anderson, 2011)**

Carl A. Anderson, et al.
Nature Genetics

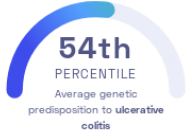
Inflammation Intestines



STUDY SUMMARY

Genetic variants linked to inflammation and programmed cell death may affect the risk for ulcerative colitis.

YOUR RESULT



STUDY DESCRIPTION

Ulcerative colitis is an inflammatory bowel disease that occurs when sores develop in the colon due to an ongoing inflammation. Symptoms such as diarrhea, abdominal pain, and fatigue typically develop over time. Ulcerative colitis is also known to be heritable, yet the genetic factors underlying this are not well understood. This study examined over 40,000 individuals of European ancestry and discovered 29 novel genetic variants associated with ulcerative colitis. Many of these variants were previously linked to programmed cell death and the immune system, in particular inflammation. The novel variants are estimated to explain 16% of the heritability for ulcerative colitis, with all significant variants explaining 28% of its heritability.

DID YOU KNOW?

To reduce ulcerative colitis symptoms, drink plenty of water, limit dairy products and exercise regularly.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to ulcerative colitis we summed up the effects of genetic variants that were linked to ulcerative colitis 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 ulcerative colitis. The variants highlighted in blue have **negative effect sizes** and decrease your genetic predisposition to ulcerative colitis. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to ulcerative colitis. By adding up the effect sizes of the highlighted variants we calculated your **polygenic score for ulcerative colitis to be 6.54**. 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 ulcerative colitis is in the **54th percentile**. This means that it is higher than the polygenic scores 54% of people. We consider this to be an **average genetic predisposition to ulcerative colitis**. 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
rs9268853_T	T / T	0.34 (↑)	66%	1.35 x 10 ⁻⁵⁵
rs6426833_A	G / A	0.26 (↑)	54%	3.93 x 10 ⁻³⁵
rs11209026_G	G / G	0.55 (↑)	94%	5.12 x 10 ⁻²⁸
rs10758869_C	C / A	0.16 (↑)	35%	2.22 x 10 ⁻²⁵
rs2836878_G	G / A	0.22 (↑)	74%	1.86 x 10 ⁻²²
rs6871626_A	C / C	0.16 (-)	33%	1.11 x 10 ⁻²¹
rs6584283_T	T / C	0.19 (↑)	47%	8.46 x 10 ⁻²¹
rs6017342_C	A / A	0.18 (-)	54%	1.09 x 10 ⁻²⁰
rs1801274_A	A / G	0.19 (↑)	51%	2.16 x 10 ⁻²⁰
rs10781499_A	G / G	0.11 (-)	41%	2.62 x 10 ⁻¹⁹
rs16940202_C	T / T	0.14 (-)	18%	5.96 x 10 ⁻¹⁹
rs9822268_A	A / A	0.19 (↑)	30%	1.60 x 10 ⁻¹⁷
rs3024505_A	G / G	0.22 (-)	16%	5.76 x 10 ⁻¹⁷
rs6920220_A	G / A	0.13 (↑)	21%	8.05 x 10 ⁻¹⁷
rs17086007_C	T / T	0.15 (-)	18%	9.65 x 10 ⁻¹⁷
rs7134599_A	G / G	0.17 (-)	39%	1.06 x 10 ⁻¹⁶
rs4510766_A	A / G	0.18 (↑)	56%	2.00 x 10 ⁻¹⁶
rs2155219_T	G / G	0.12 (-)	50%	5.39 x 10 ⁻¹⁶
rs798502_A	A / C	0.12 (↑)	71%	2.61 x 10 ⁻¹⁶
rs7608910_G	A / A	0.17 (-)	39%	1.70 x 10 ⁻¹⁴
rs678170_A	A / A	0.09 (↑)	66%	4.65 x 10 ⁻¹⁴
rs7524102_A	A / A	0.10 (↑)	83%	1.65 x 10 ⁻¹³
rs7554511_C	C / C	0.17 (↑)	72%	2.04 x 10 ⁻¹³
rs1297265_A	G / G	0.10 (-)	56%	6.99 x 10 ⁻¹³
rs2310173_T	G / G	0.09 (-)	46%	3.17 x 10 ⁻¹²
rs941823_C	T / C	0.11 (↑)	76%	3.82 x 10 ⁻¹²
rs4246905_C	T / C	0.10 (↑)	71%	5.65 x 10 ⁻¹²
rs267939_C	C / C	0.10 (↑)	37%	6.01 x 10 ⁻¹²
rs2872507_A	G / A	0.14 (↑)	46%	5.44 x 10 ⁻¹¹
rs2838519_G	G / G	0.13 (↑)	39%	6.41 x 10 ⁻¹¹
rs4676406_T	G / G	0.13 (-)	52%	8.32 x 10 ⁻¹¹
rs11676348_T	T / T	0.07 (↑)	49%	1.25 x 10 ⁻¹⁰
rs907611_A	G / A	0.08 (↑)	32%	1.38 x 10 ⁻¹⁰
rs2297441_A	A / A	0.09 (↑)	77%	1.70 x 10 ⁻¹⁰
rs943072_G	T / T	0.14 (-)	9%	2.37 x 10 ⁻¹⁰
rs12261843_G	T / G	0.07 (↑)	29%	7.09 x 10 ⁻¹⁰
rs254560_A	G / A	0.07 (↑)	40%	1.25 x 10 ⁻⁹
rs6451493*_T	G / G	0.08 (-)	61%	2.80 x 10 ⁻⁹
rs731999_C	C / C	0.05 (↑)	52%	3.34 x 10 ⁻⁹

rs764939_G	G / G	0.08 (↑)	82%	3.84×10^{-8}
rs36676666_G	G / G	0.08 (↑)	83%	4.84×10^{-9}
rs6911490_T	T / T	0.08 (↑)	21%	1.01×10^{-8}
rs4728142_A	G / A	0.07 (↑)	44%	1.74×10^{-8}
rs11739663_T	T / T	0.14 (↑)	77%	2.80×10^{-8}
rs6499188_A	G / A	0.13 (↑)	75%	3.97×10^{-8}
rs3194051_G	A / A	0.07 (-)	27%	4.22×10^{-8}