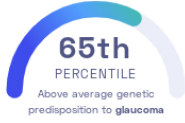


STUDY SUMMARY

Identification of over 100 genetic variants associated with glaucoma.

YOUR RESULT



STUDY DESCRIPTION

Glaucoma is a medical condition characterized by damage to the eye's optic nerve usually due to increased pressure in the eye. Because no cost-effective way to screen for glaucoma currently exists, researchers explored the use of polygenic risk scores to determine an individual's risk. This study utilized data from over 120,000 individuals of European ancestry to find genomic regions associated with glaucoma. The researchers identified 114 genetic variants associated with glaucoma, many of which are novel. The polygenic risk scores calculated using these variants indicated a 15-fold higher risk of advanced glaucoma for individuals in the 90th percentile of polygenic scores.




























DID YOU KNOW?









The best way to prevent the development of glaucoma is to schedule regular eye exams with your doctor.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to glaucoma we summed up the effects of genetic variants that were linked to glaucoma 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 glaucoma. The variants highlighted in blue have **negative effect sizes** and decrease your genetic predisposition to glaucoma. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to glaucoma. By adding up the effect sizes of the highlighted variants we calculated your polygenic score for glaucoma to be **2.31**. To determine whether your score is high or low, we compared it to the scores of 6,000 other Nebula Genomics users. We found that your polygenic score for glaucoma is in the **65th percentile**. This means that it is higher than the polygenic scores 65% of people. We consider this to be an **above average genetic predisposition to glaucoma**. 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 [Ⓞ]
rs10918274_T	C / C	0.31 (-)	12%	5.60 x 10 ⁻⁹²
rs2472493_G	G / A	0.17 (↑)	45%	7.80 x 10 ⁻⁶⁹
rs9913911_A	A / A	0.17 (↑)	62%	1.10 x 10 ⁻⁶⁸
rs59454365_C	C / G	-0.17 (↓)	73%	4.40 x 10 ⁻⁴⁹
rs28795989_A	G / G	0.15 (-)	40%	5.80 x 10 ⁻⁴²
rs2275241_G	G / G	0.15 (↑)	63%	3.20 x 10 ⁻⁴⁰
rs9863115_T	T / T	0.14 (↑)	50%	1.10 x 10 ⁻³⁹
rs944801_G	G / G	-0.14 (↓)	43%	2.00 x 10 ⁻³⁸
rs6838291_C	C / C	-0.17 (↓)	82%	2.20 x 10 ⁻³⁶
rs2746572_A	G / G	0.13 (-)	67%	1.20 x 10 ⁻³⁰
rs2022945_A	G / G	-0.19 (-)	13%	1.10 x 10 ⁻²⁹
rs1579050_A	A / G	-0.12 (↓)	43%	7.50 x 10 ⁻²⁶
rs5711852_G	G / G	-0.14 (↓)	86%	6.20 x 10 ⁻²²
rs58073046_A	A / A	-0.15 (↓)	88%	1.10 x 10 ⁻²¹
rs6914444_T	T / T	0.15 (↑)	86%	4.10 x 10 ⁻²¹
rs56319620_C	C / C	-0.12 (↓)	80%	4.50 x 10 ⁻²¹
rs4821712_C	T / T	0.10 (-)	37%	1.30 x 10 ⁻²⁰
rs2896175_A	A / C	0.10 (↑)	62%	1.70 x 10 ⁻¹⁸
rs76325372_A	A / A	0.10 (↑)	73%	4.30 x 10 ⁻¹⁸
rs36155027_G	G / C	0.09 (↑)	39%	6.20 x 10 ⁻¹⁷
rs9494457_T	T / A	0.10 (↑)	62%	6.90 x 10 ⁻¹⁷
rs7924522_C	A / A	-0.09 (-)	34%	6.90 x 10 ⁻¹⁷
rs1867409_G	G / G	0.10 (↑)	70%	1.10 x 10 ⁻¹⁶
rs11234741_A	A / G	-0.11 (↓)	80%	2.70 x 10 ⁻¹⁶
rs2439042_T	T / T	0.14 (↑)	90%	7.60 x 10 ⁻¹⁶
rs4102217_G NEW	G / G	0.10 (↑)	80%	7.80 x 10 ⁻¹⁶
rs8064739_A	A / C	-0.08 (↓)	59%	1.20 x 10 ⁻¹⁵
rs738722_T NEW	T / C	-0.09 (↓)	30%	2.30 x 10 ⁻¹⁵
rs4141194_C	C / C	-0.09 (↓)	71%	5.20 x 10 ⁻¹⁵
rs2188836_C	C / T	-0.08 (↓)	58%	5.80 x 10 ⁻¹⁵
rs75265191_G	G / G	-0.15 (↓)	93%	1.40 x 10 ⁻¹⁴
rs327712_C	C / G	0.09 (↑)	57%	1.70 x 10 ⁻¹⁴
rs2936072_C	C / T	-0.12 (↓)	88%	2.40 x 10 ⁻¹⁴
rs6140009_C	C / C	0.09 (↑)	62%	2.40 x 10 ⁻¹⁴
rs9608740_A	A / A	-0.11 (↓)	81%	3.00 x 10 ⁻¹⁴
rs12216891_C NEW	C / C	-0.16 (↓)	94%	6.70 x 10 ⁻¹⁴
rs17339357_T	T / T	-0.15 (↓)	93%	9.20 x 10 ⁻¹⁴
rs7089636_T	T / G	-0.08 (↓)	54%	9.80 x 10 ⁻¹⁴
rs4658101_A NEW	G / G	0.10 (-)	19%	1.20 x 10 ⁻¹³
rs8009633_G NEW	G / G	0.10 (↑)	77%	1.50 x 10 ⁻¹³
rs2249195_A	C / C	0.08 (-)	57%	1.60 x 10 ⁻¹³

rs66600121_A	A / G	0.08 (↑)	41%	2.60×10^{-13}
rs2274224_G	G / C	-0.07 (↓)	67%	2.70×10^{-13}
rs73111535_C	C / C	0.16 (↑)	93%	3.40×10^{-13}
rs3785856_A	G / G	-0.09 (-)	20%	3.70×10^{-13}
rs12068500_G 	G / G	-0.13 (↓)	91%	7.30×10^{-13}
rs62580791_A	A / C	-0.07 (↓)	54%	1.10×10^{-12}
rs9544024_A	G / G	-0.07 (-)	50%	1.20×10^{-12}
rs12139208_T	T / C	0.08 (↑)	38%	2.20×10^{-12}
rs324762_A	A / G	-0.07 (↓)	46%	2.90×10^{-12}
rs6741499_C	C / C	-0.08 (↓)	74%	3.80×10^{-12}
rs6732795_A	C / C	-0.07 (-)	61%	7.20×10^{-12}
rs73148965_G	G / G	0.10 (↑)	85%	9.40×10^{-12}
rs113542380_G	G / A	-0.14 (↓)	92%	9.70×10^{-12}
rs72669675_A 	A / T	-0.07 (↓)	63%	1.00×10^{-11}
rs722585_G	A / A	0.08 (-)	72%	1.10×10^{-11}
rs2145826_G 	A / A	0.07 (-)	43%	1.30×10^{-11}
rs34952318_G	G / G	0.17 (↑)	95%	1.40×10^{-11}
rs1283696_T	T / T	0.13 (↑)	91%	2.70×10^{-11}
rs10869665_C	C / T	0.08 (↑)	70%	2.70×10^{-11}
rs9816799_T	T / C	-0.07 (↓)	56%	4.50×10^{-11}
rs1286771_T 	T / T	0.10 (↑)	87%	4.90×10^{-11}
rs4703855_C 	C / T	0.08 (↑)	70%	6.10×10^{-11}
rs74984957_G	G / G	0.07 (↑)	64%	6.20×10^{-11}
rs13009933_C 	C / C	-0.07 (↓)	64%	1.30×10^{-10}
rs2526101_A	A / G	-0.07 (↓)	55%	1.30×10^{-10}
rs73294447_T	T / T	0.31 (↑)	99%	1.90×10^{-10}
rs11859314_G 	G / G	-0.07 (↓)	71%	2.20×10^{-10}
rs4601984_G	G / G	-0.07 (↓)	64%	2.40×10^{-10}
rs4434990_G	C / C	-0.09 (-)	87%	2.80×10^{-10}
rs440677_G 	G / A	-0.07 (↓)	38%	2.80×10^{-10}
rs4420855_A	A / G	0.08 (↑)	70%	3.80×10^{-10}
rs74259971_T 	T / C	0.09 (↑)	83%	4.00×10^{-10}
rs3743861_G 	C / C	0.07 (-)	58%	4.00×10^{-10}
rs11229165_T	T / T	-0.09 (↓)	87%	4.10×10^{-10}
rs12045227_G 	G / G	-0.08 (↓)	80%	5.30×10^{-10}
rs56152426_A	A / A	0.09 (↑)	82%	5.70×10^{-10}
rs7273775_C	C / T	0.07 (↑)	61%	9.40×10^{-10}
rs4412362_C 	T / T	-0.06 (-)	39%	9.50×10^{-10}
rs6065171_T	C / C	0.07 (-)	49%	9.80×10^{-10}
rs2526385_T 	G / G	0.08 (-)	20%	1.10×10^{-9}
rs4709210_T 	T / T	0.07 (↑)	72%	1.30×10^{-9}
rs4128399_T	T / C	-0.08 (↓)	83%	1.50×10^{-9}
rs4936100_A 	A / G	-0.08 (↓)	21%	1.50×10^{-9}
rs2881425_A 	A / G	0.07 (↑)	68%	1.60×10^{-9}
rs73220190_T 	T / T	0.12 (↑)	93%	1.90×10^{-9}
rs1084524_G	G / G	0.09 (↑)	15%	2.10×10^{-9}
rs62188040_C	A / A	0.10 (-)	89%	2.10×10^{-9}
rs11710845_C	C / C	0.07 (↑)	74%	2.70×10^{-9}
rs1362227_A 	C / C	0.07 (-)	43%	3.20×10^{-9}
rs447324_A 	A / A	0.07 (↑)	72%	3.40×10^{-9}
rs756481_A 	A / A	0.15 (↑)	95%	3.60×10^{-9}
rs351973_A 	A / G	0.07 (↑)	36%	4.30×10^{-9}
rs36006455_T 	T / T	0.07 (↑)	72%	5.30×10^{-9}
rs3184504_T	T / C	-0.06 (↓)	48%	5.60×10^{-9}
rs163524_C	C / A	-0.08 (↓)	82%	5.70×10^{-9}
rs12280392_T 	T / G	-0.07 (↓)	77%	6.60×10^{-9}
rs11008626_T 	T / T	-0.06 (↓)	71%	6.60×10^{-9}
rs12913832_A 	G / G	0.08 (-)	21%	7.10×10^{-9}
rs56405342_C 	C / C	0.09 (↑)	86%	7.20×10^{-9}
rs893830_G 	G / A	-0.08 (↓)	84%	7.80×10^{-9}

rs10435033_G	G / A	0.07 (↑)	66%	8.70×10^{-9}
rs12778014_G 	G / A	0.07 (↑)	66%	1.00×10^{-8}
rs10796912_G	G / G	-0.06 (↓)	56%	1.10×10^{-8}
rs1126809_G 	G / G	0.07 (↑)	69%	1.10×10^{-8}
rs7799028_G 	G / T	-0.06 (↓)	73%	1.40×10^{-8}
rs9530143_G	G / G	0.07 (↑)	68%	1.40×10^{-8}
rs11567976_C 	C / C	-0.06 (↓)	43%	1.70×10^{-8}
rs274760_C	C / C	0.12 (↑)	94%	2.00×10^{-8}
rs1563966_G 	G / G	0.06 (↑)	66%	2.10×10^{-8}
rs62172701_A	A / C	0.07 (↑)	78%	2.70×10^{-8}
rs1347141_A 	A / C	0.06 (↑)	47%	2.90×10^{-8}
rs1616405_A 	A / A	0.06 (↑)	49%	4.00×10^{-8}
rs61756679_C 	C / C	0.17 (↑)	97%	4.60×10^{-8}