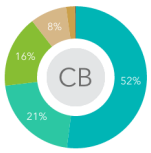
Eyes

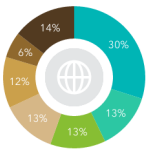
The eyes are said to be the windows to the soul, but did you know your genes are a window to your eyes? Although it's not the only factor, your eye color is determined mostly by one gene.

Eye Color | What You Can Do

Cordell, you are likely to have light-colored eyes.

97% of customers who are genetically similar to you have blue, green, or light hazel eyes.





Your genetic likelihood			European ancestry customers		
97% Lighter eyes	Blue	52%	30%	Blue	69% Lighter eyes
	Greenish blue	21%	13%	Greenish blue	
	Green	16%	13%	Green	
	Light hazel	8%	13%	Light hazel	
	Dark hazel	2%	12%	Dark hazel	
	Light brown	< 1%	6%	Light brown	
	Dark brown	< 1%	14%	Dark brown	

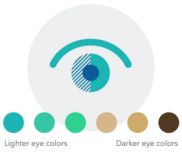
We analyzed your DNA at one genetic marker that studies have shown is associated with eye color. Your prediction is based on data from 23andMe customers who consented to research and are genetically similar to you at this marker.

About Eye Color

Eye color refers to the color of the iris, which can be blue, green, hazel, brown, or many shades in between.

Biology

Human eye color is primarily determined by the amount of a pigment called melanin in the iris. This is the same pigment that determines skin and hair color. Lighter-colored eyes have less of this pigment while darker eyes have more pigment.



Genetics

The OCA2 gene helps control the amount of melanin in the iris. A certain variant near this gene changes how active it is. In people with this variant, the OCA2 gene is less active, leading to less melanin in the iris.

Other factors

There are other factors related to eye color.

- History >
- Lighting >
- Heterochromia >

Do more with your Traits results.

Help us develop more trait reports by contributing to research.

Contribute

Compare your results to your family and friends.

Compare

Join the discussion with other 23andMe customers interested in Traits.

Discuss

Patent Pending

Your Facial Features

Scientific Details

We use two different methods to calculate your trait results.

Statistical Model

Most traits are influenced by many different factors, including genetics, lifestyle, and environment. Usually, a statistical model using many factors provides better predictions than looking at single factors by themselves. To develop our models, we first identify genetic markers associated with a trait using data from tens of thousands of 23andMe customers who have consented to research. Then, we use statistical methods to generate a "score" for that trait using your genotype at the relevant genetic markers as well as your age and sex. We predict your likelihood of having different versions of the trait based on the survey responses of 23andMe customers with similar scores. These predictions apply best to customers who are of the same ethnicity as the people whose data contributed to the model. The accuracy of these predictions varies from trait to trait.

Read more about our statistical methodology

Curated Model

For some traits, just a few genetic markers can strongly predict whether a person will have a particular version of the trait. For curated models, we first evaluate published scientific studies to identify genetic markers with well-established associations with the trait. Then, we look at genetic and survey data from tens of thousands of 23andMe customers who have consented to research. We estimate your likelihood of having different versions of the trait based on survey responses from customers who are genetically similar to you at those markers. These results apply best to customers who are of the same ethnicity as the people whose data contributed to the predictions.

About your Eye Color result

Your result for this trait was calculated using a **curated model**.

Variants Detected	View All Tested Markers
2	1

Marker Tested	Your Genotype*	Additional Information
rs12913832 Gene: Near OCA2 Marker: rs12913832	**G** Variant copy from one of your parents  **G** Variant copy from your other parent	> **Biological explanation** > **Typical vs. variant DNA sequence(s)** > **Percent of 23andMe customers with variant** > **References [4, 13, 14]**

*This test cannot distinguish which copy you received from which parent. This test also cannot determine whether multiple variants, if detected, were inherited from only one parent or from both parents. This may impact how these variants are passed down.

23andMe always reports genotypes based on the 'positive' strand of the human genome reference sequence (build 37). Other sources sometimes report genotypes using the opposite strand.

References

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Ⓟ Patent Pending