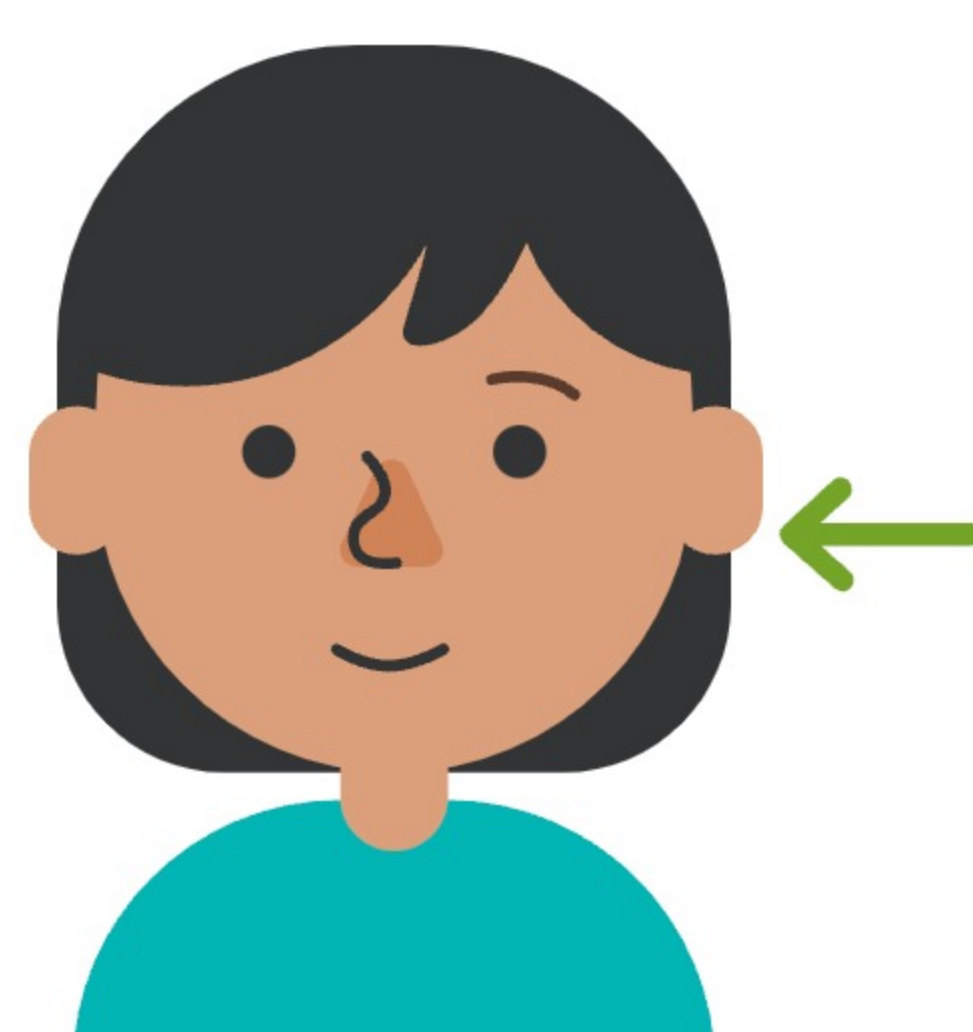


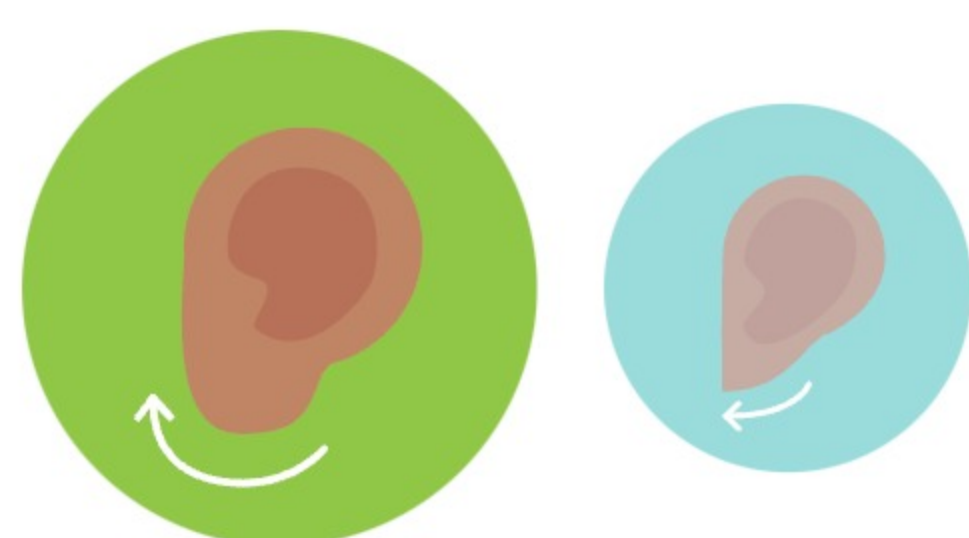
Earlobe Type

Overview Scientific Details



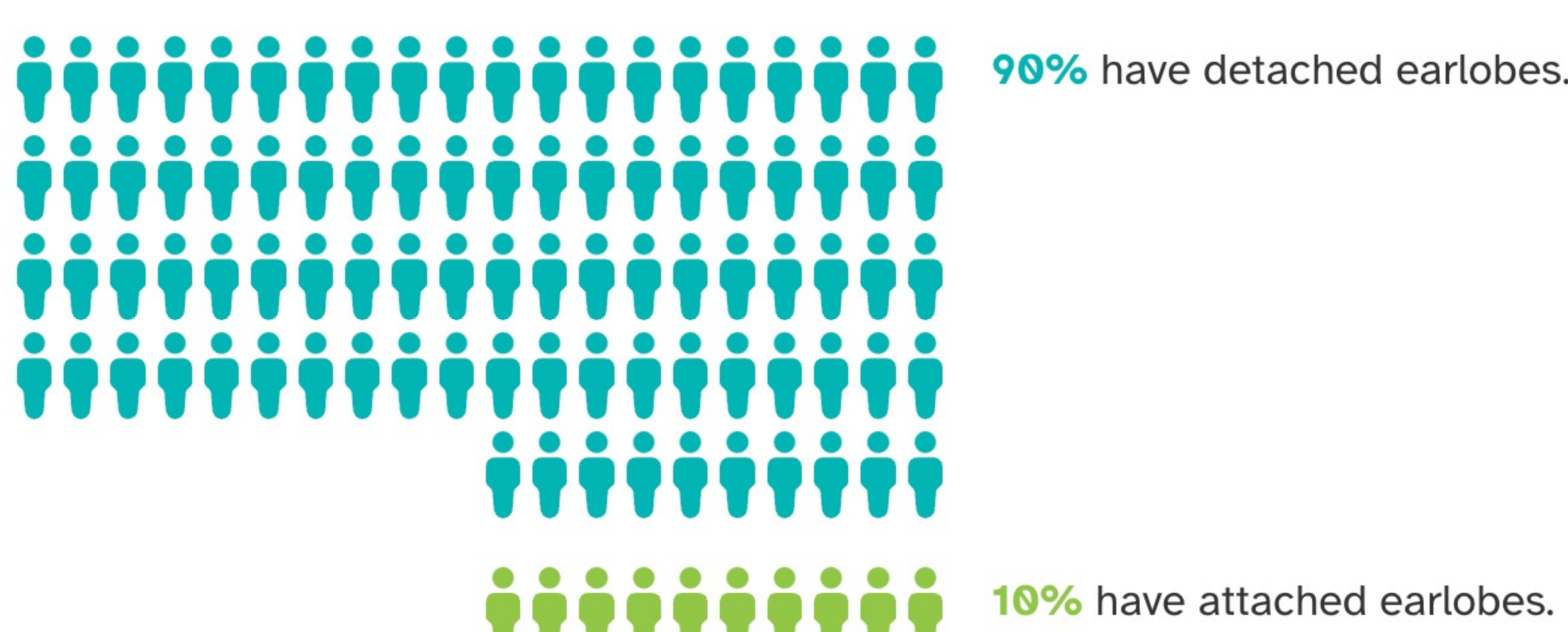
Mysteries and discoveries

No one knows why humans have earlobes at all, but that hasn't stopped us from finding genetic variants linked to earlobe shape.



Jamie, the combination of your genetics and other factors makes you likely to have detached earlobes.

Of 23andMe research participants with results like yours:



➔ What shape are your earlobes?

How did we calculate your result?

We added up the effect of your genetic variants at 32 places in your DNA (genetic markers) plus the effect of other factors, including your age and sex.

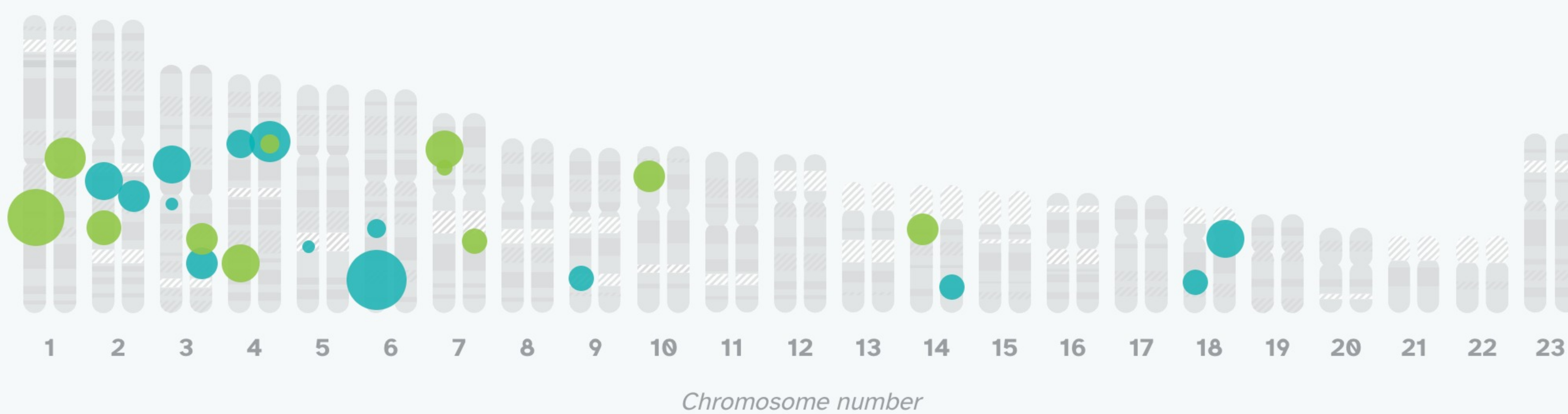
Total effect of your genetics + other factors



YOUR GENETICS	OTHER FACTORS
● less likely detached	●
● more likely detached	●

Breakdown of your genetics

The bigger the circle, the stronger the effect your variants have on your overall chances.



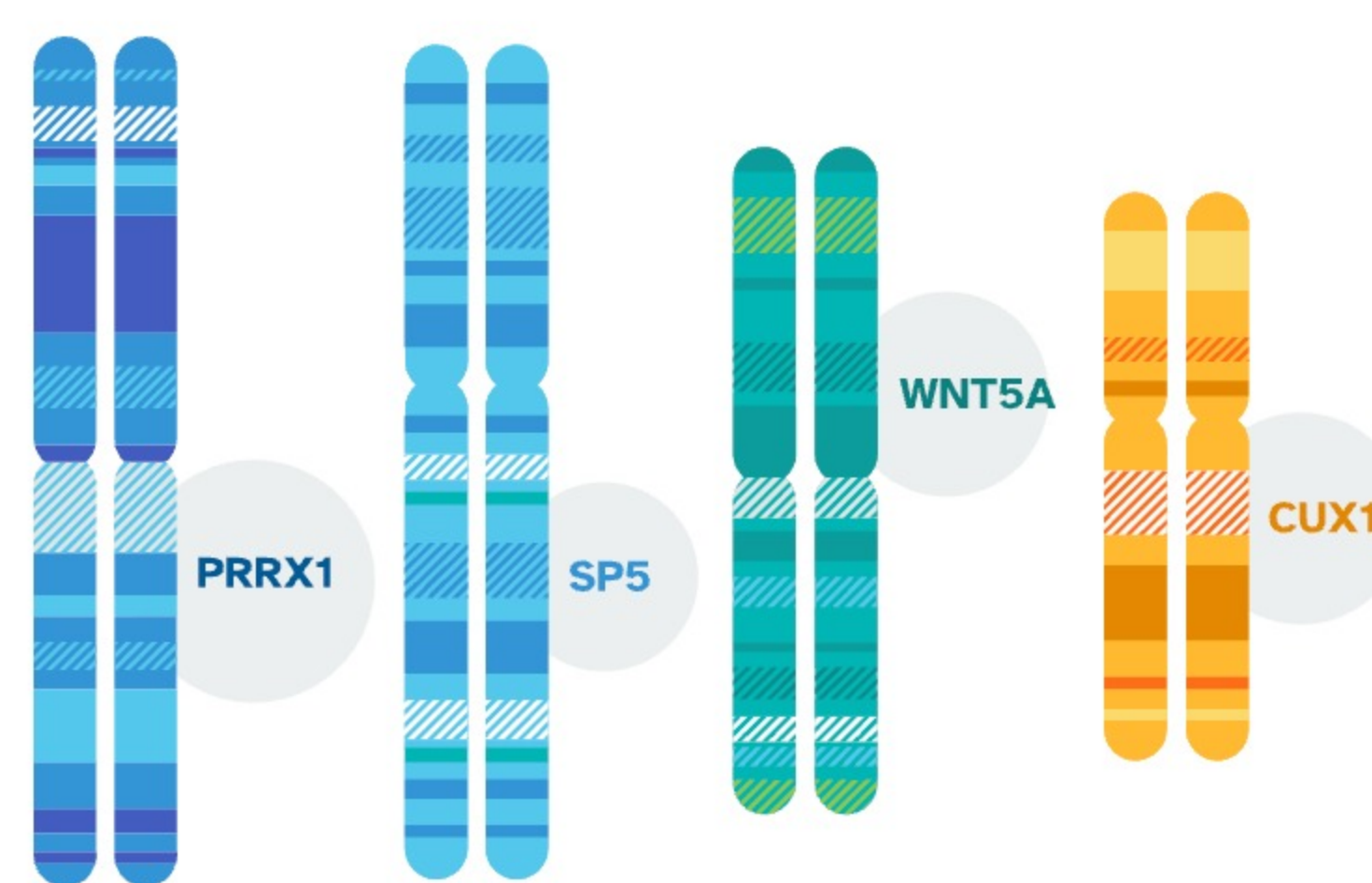
At 14 of the genetic markers we looked at you have variants that make you more likely to have detached earlobes, and at 11 you have variants that make you less likely. At 7 of the markers we looked at, you have variants with no effect either way (not shown).

See Scientific Details

More about earlobes

Genetics

Because of the way earlobe shape is passed down through families, scientists initially proposed that this trait was controlled by just one gene. But 23andMe research suggests the genetics of earlobe shape are more complicated: we discovered 32 different genetic markers associated with earlobe type. We don't know exactly how these markers may influence earlobe shape, but some are near genes known to play a role in development of the skin or other tissues, like WNT5A, SP5, PRRX1, and CUX1.



Genes involved in development

Keep exploring your Traits results.



Contribute

By contributing to research, you could help us develop more Traits reports.



Compare

Compare your results to your family and friends.



Discuss

Join the discussion with other customers interested in Traits.

Did you find this interesting?

Yes

No



Give the gift of DNA discovery.

Gift a kit

Refer friends, earn rewards.

Get reward

ANCESTRY

- Ancestry Overview
- All Ancestry Reports
- Ancestry Composition
- DNA Relatives
- Order Your DNA Book

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- Research Overview
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- Publications

FAMILY & FRIENDS

- View all DNA Relatives
- Family Tree
- Your Connections
- GrandTree
- Advanced DNA Comparison

Earlobe Type

Overview **Scientific Details**

We use one of 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 Earlobe Type result

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

About the Earlobe Type model

Created based on customers of ethnicity: **European**

Number of customers used to create: **50,000**

Number of markers: **32**

Area Under Curve (AUC): **0.641**

Non-genetic factors: **Age, Sex**

Bin #	Attached earlobes	Detached earlobes
1	49.84%	50.16%
2	39.72%	60.28%
3	37.32%	62.68%
4	35.27%	64.73%
5	32.97%	67.03%
6	30.03%	69.97%
7	28.96%	71.04%
8	27.82%	72.18%
9	25.70%	74.30%
10	25.66%	74.34%
11	23.65%	76.35%
12	23.04%	76.96%
13	20.93%	79.07%
14	19.78%	80.22%
15	18.16%	81.84%
16	16.80%	83.20%
17	15.87%	84.13%
18	13.78%	86.22%
19	12.35%	87.65%
JW	20	90.31%
Overall European	25.37%	74.63%

References

1. [El Kollali R. \(2009.\) "Earlobe morphology: a simple classification of normal earlobes." J Plast Reconstr Aesthet Surg. 62: 277-280.](#)
2. [Powell EF and Whitney DD. \(1937.\) "Ear lobe inheritance: an unusual three-generation photographic pedigree chart." Journal of Heredity. 28:184-186.](#)

Change Log

Your report may occasionally be updated based on new information. This Change Log describes updates and revisions to this report.

Date	Change
Dec. 15, 2017	Earlobe Type report updated with revised content and design. Additionally, as part of regular report review and improvements in data analysis, some male customers may see an updated result.
June 22, 2017	Earlobe Type report separated from the Facial Features report.
Oct. 21, 2015	Facial Features report created.



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