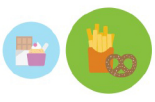
Sweet vs. Salty

The brain and taste preference

There's no taste map on your tongue. But there is a vast taste network in your brain. Genetics may influence how your brain judges and responds to tastes.

Your Traits Result



kary_mullis, the combination of your genetics and other factors makes you **likely to prefer salty or savory snacks.**

Of 23andMe research participants with results like yours:

57% prefer salty or savory snacks.

43% prefer sweet snacks.

Which do you tend to prefer?

How did we calculate your result?

We added up the effect of your genetic variants at 43 places in your DNA (genetic markers) plus the effect of other factors, including your age and sex.

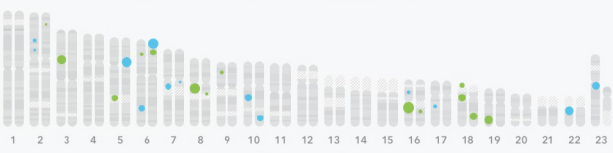
Total effect of your genetics + other factors

YOUR GENETICS	OTHER FACTORS
likely salty preference	
likely sweet preference	

Learn more about your genetic variants

Breakdown of your genetics

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



Chromosome number

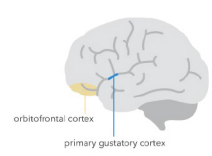
At 14 of the genetic markers we looked at you have variants that make you more likely to prefer salty, and at 13 you have variants that make you more likely to prefer sweet. At 16 of the markers we looked at, you have variants with no effect either way (not shown).

See Scientific Details

More about taste preferences

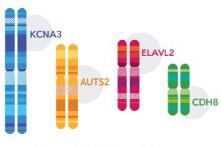
How the brain judges tastes

Many areas of your nervous system work together to influence your taste preferences. The tongue detects the molecules present in foods you eat and sends signals to a brain area, the "primary gustatory cortex", that helps identify their tastes. Another area, the "orbitofrontal cortex", then helps judge whether you like these tastes. And several other brain areas help determine your responses to pleasant flavors – like deciding to eat more.



Genetics

Like almost all traits, taste preference is partly shaped by genetics, and partly by environment. 23andMe research identified 43 genetic markers where people can have variants that make them more likely to prefer sweet snacks or salty/savory snacks. A few of these 43 genetic markers are in or near genes involved in brain development or function (like CDH8, ELAVL2, AUTS2, and KCNA3). But most are near genes with a broad range of functions, perhaps reflecting the complexity of this trait.



Some variants in this model are near genes involved in brain function

Keep exploring your Traits results.

Contribute

Join the research effort and contribute to new discoveries.

Compare

Compare your results to your family and friends.

Discuss

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

Sweet vs. Salty

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 Sweet vs. Salty result

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

About the Sweet vs. Salty model

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

Number of customers used to create: **120,000**

Number of markers: **43**

Area Under Curve (AUC): **0.58**

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

Bin #	Prefers salty	Prefers sweet
1	70.56%	29.44%
2	66.30%	33.70%
3	63.65%	36.35%
4	62.38%	37.62%
5	60.60%	39.40%
6	60.17%	39.83%
7	59.49%	40.51%
8	58.22%	41.78%
9	57.60%	42.40%
KK 10	57.21%	42.79%
11	55.99%	44.01%
12	53.65%	46.35%
13	53.93%	46.07%
14	51.75%	48.25%
15	50.90%	49.10%
16	50.17%	49.83%
17	49.32%	50.68%
18	48.41%	51.59%
19	44.16%	55.84%
20	41.45%	58.55%
Overall European	55.80%	44.20%

References

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See all references

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	Sweet vs. Salty 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	Sweet Taste report separated from the Taste and Smell report.
Oct. 21, 2015	Taste and Smell report created.