

Bitter Taste

Overview

Scientific Details



A bitter warning

Scientists believe the bitter taste sense developed to help animals detect toxins or poisons in food. But not everyone can taste the same things.

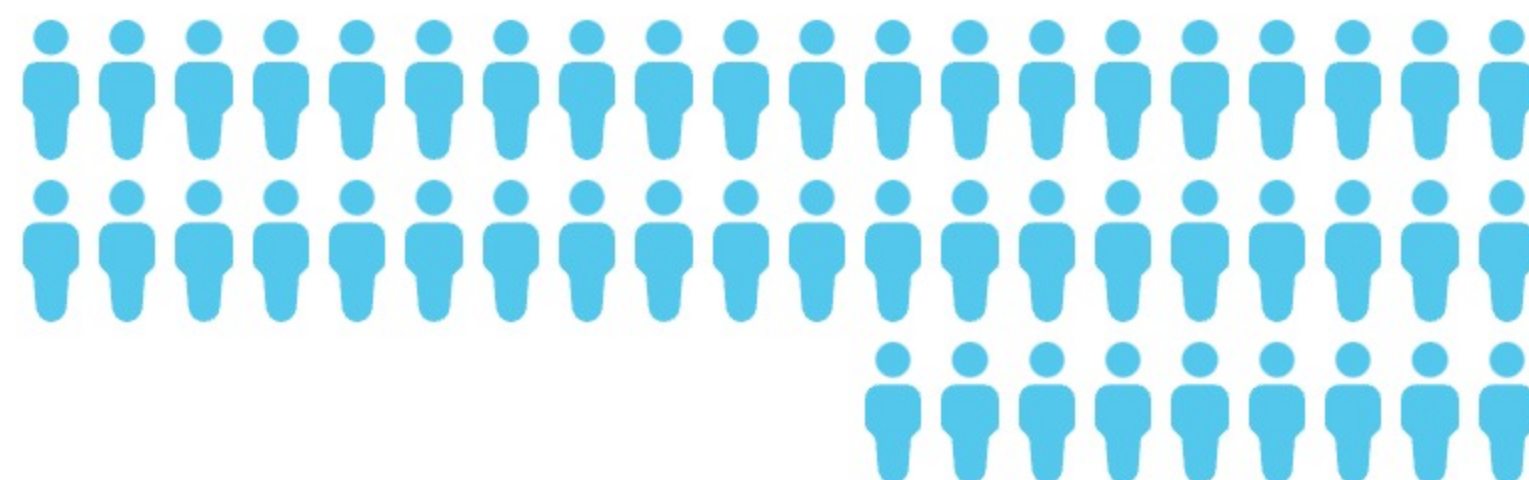


Jamie, your genetics make you **likely to be able to detect certain bitter tastes.**

Of 23andMe research participants with genetics like yours:



51% are likely to taste.



49% are unlikely to taste.

Bitter Taste

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 Bitter Taste result

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

Variants Detected		View All Tested Markers	
Marker Tested	Genotype*	Additional Information	
A49P Gene: TAS2R38 Marker: rs713598	C Typical copy from one of your parents		G Variant copy from your other parent
		<ul style="list-style-type: none"> ▼ Biological explanation ▼ Typical vs. variant DNA sequence(s) ▼ Percent of 23andMe customers with variant ▼ References [1, 3, 6, 8] 	

*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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- [Genick UK et al. \(2011\). "Sensitivity of genome-wide-association signals to phenotyping strategy: the PROP-TAS2R38 taste association as a benchmark." *PLoS One.* 6\(11\):e27745. ↗](#)
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- [Nei M et al. \(2008\). "The evolution of animal chemosensory receptor gene repertoires: roles of chance and necessity." *Nat Rev Genet.* 9\(12\):951-63. ↗](#)
- [Shi P et al. \(2006\). "Contrasting modes of evolution between vertebrate sweet/umami receptor genes and bitter receptor genes." *Mol Biol Evol.* 23\(2\):292-300. ↗](#)

[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	Bitter Taste report updated with revised content and design.
June 22, 2017	Bitter Taste report separated from the Taste and Smell report.
May 12, 2016	Customers with a "Not Determined" genotype for a genetic marker used for Bitter Taste previously received a result based on the typical genotype for that marker. These customers will now receive a "Not Determined" result.
Feb. 18, 2016	Due to improvements in data analysis, some customers who previously received a "Not Determined" result for rs713598 may see a genotype at this marker. This may also update the Bitter Taste result in the Taste report for these customers.
Oct. 21, 2015	Taste and Smell report created.



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