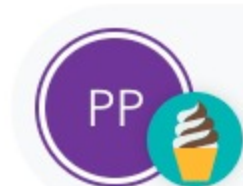


# Ice Cream Flavor Preference

POWERED BY 23ANDME RESEARCH



play+cbd004d119, based on your genetics and other factors, you are more likely to prefer **vanilla** ice cream over chocolate ice cream.

## Which flavor do you favor?

When it comes to ice cream, do you prefer vanilla or chocolate? Your ice cream flavor preference is likely influenced by culture and previous experiences, but the impact of your genetics may be the cherry on top.

## Many factors can influence your chances of preferring one ice cream flavor over another.

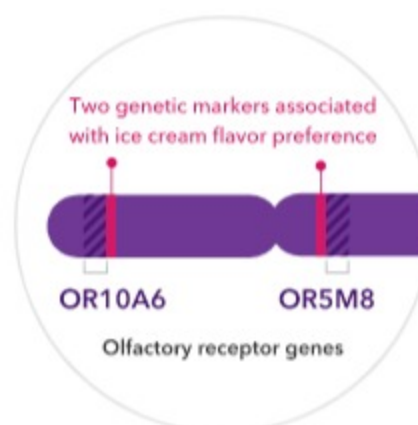
Scientists at 23andMe identified 739 genetic markers that are associated with preferring vanilla ice cream versus chocolate ice cream. In addition to genetics, other factors like age, sex, and ancestry can also influence your chances.

Of people with genetics and other factors like yours, we predict:



## The scoop on your flavor preference

In the tasteful debate of vanilla versus chocolate ice cream, your preference may actually be influenced by your sense of smell. Several genetic markers associated with ice cream flavor preference are located near olfactory receptor genes, like OR10A6 and OR5M8, which contain instructions for proteins that help detect odors. While you're eating, your brain combines information from odors and your taste buds to perceive flavor. It isn't known exactly why some people fancy vanilla ice cream and others prefer chocolate, but it's possible that genetic variation in olfactory receptor genes may affect the perception of these flavors.



## How we got your result ^

For this analysis, more than 840,000 23andMe research participants of European descent contributed their genetic data and survey responses on ice cream flavor preference. These research participants answered either vanilla or chocolate when asked which ice cream flavor they like best. From their genetic and survey data, we identified 739 genetic markers associated with ice cream flavor preference. We used these genetic markers together with non-genetic factors, specifically age and sex, to create a statistical model that predicts the chances of preferring vanilla ice cream over chocolate ice cream. The model was further recalibrated to be more accurate when applied to people of African American, East Asian, European, or Hispanic/Latino descent, bringing the total number of 23andMe research participants analyzed to more than 980,000. The statistical model for people of European descent has an AUC value of 0.58. ⓘ

We used the statistical model to predict each person's chances of preferring vanilla ice cream over chocolate ice cream. The possible results predicted by the model range from a 30% chance to a 69% chance of preferring vanilla ice cream over chocolate ice cream. The age, sex, and ancestry we used for your result are based on the information you provided in your account settings. For people of mixed ancestry or ancestries for which we do not yet have enough research participants, we determined this result based on data from people of European descent since that is the group for which we have the largest sample size. 47% of 23andMe research participants reported that they prefer vanilla ice cream over chocolate ice cream.

## Read more:

Furlotte NA et al. (2015). "23andMe White Paper 23-12: Estimating complex phenotype prevalence using predictive models." 23andMe White Paper 23-12. \*

Malnic B et al. (2004). "The human olfactory receptor gene family." Proc Natl Acad Sci U S A. 101(8):2584-9. \*

McRae JF et al. (2013). "Identification of regions associated with variation in sensitivity to food-related odors in the human genome." Curr Biol. 23(16):1596-600. \*

Simon SA et al. (2006). "The neural mechanisms of gustation: a distributed processing code." Nat Rev Neurosci. 7(11):890-901. \*

23andMe Blog (2018, December 19). "I scream, you scream, our genes scream for ice cream!" Retrieved May 23, 2019, from <https://blog.23andme.com/23andme-research/you-scream-i-scream-our-genes-scream-for-ice-cream> \*

## Change log:

- June 2019. Ice Cream Flavor Preference report created.

Keep in mind that these results, powered by 23andMe research, are preliminary and meant for informational purposes only.

# Ice Cream Flavor Preference

POWERED BY 23ANDME RESEARCH



play+cbd004d119, based on your genetics and other factors, you have about equal chances of preferring **vanilla or chocolate** ice cream.

## Which flavor do you favor?

When it comes to ice cream, do you prefer vanilla or chocolate? Your ice cream flavor preference is likely influenced by culture and previous experiences, but the impact of your genetics may be the cherry on top.

## Many factors can influence your chances of preferring one ice cream flavor over another.

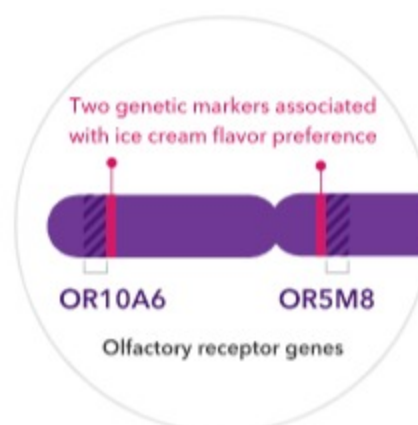
Scientists at 23andMe identified 739 genetic markers that are associated with preferring vanilla ice cream versus chocolate ice cream. In addition to genetics, other factors like age, sex, and ancestry can also influence your chances.

Of people with genetics and other factors like yours, we predict:



## The scoop on your flavor preference

In the tasteful debate of vanilla versus chocolate ice cream, your preference may actually be influenced by your sense of smell. Several genetic markers associated with ice cream flavor preference are located near olfactory receptor genes, like OR10A6 and OR5M8, which contain instructions for proteins that help detect odors. While you're eating, your brain combines information from odors and your taste buds to perceive flavor. It isn't known exactly why some people fancy vanilla ice cream and others prefer chocolate, but it's possible that genetic variation in olfactory receptor genes may affect the perception of these flavors.



## How we got your result ^

For this analysis, more than 840,000 23andMe research participants of European descent contributed their genetic data and survey responses on ice cream flavor preference. These research participants answered either vanilla or chocolate when asked which ice cream flavor they like best. From their genetic and survey data, we identified 739 genetic markers associated with ice cream flavor preference. We used these genetic markers together with non-genetic factors, specifically age and sex, to create a statistical model that predicts the chances of preferring vanilla ice cream over chocolate ice cream. The model was further recalibrated to be more accurate when applied to people of African American, East Asian, European, or Hispanic/Latino descent, bringing the total number of 23andMe research participants analyzed to more than 980,000. The statistical model for people of European descent has an AUC value of 0.58. ⓘ

We used the statistical model to predict each person's chances of preferring vanilla ice cream over chocolate ice cream. The possible results predicted by the model range from a 30% chance to a 69% chance of preferring vanilla ice cream over chocolate ice cream. The age, sex, and ancestry we used for your result are based on the information you provided in your account settings. For people of mixed ancestry or ancestries for which we do not yet have enough research participants, we determined this result based on data from people of European descent since that is the group for which we have the largest sample size. 47% of 23andMe research participants reported that they prefer vanilla ice cream over chocolate ice cream.

## Read more:

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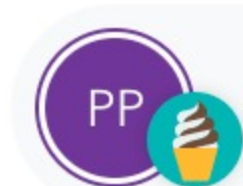
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## Ice Cream Flavor Preference

POWERED BY 23ANDME RESEARCH



play+cbd004d119, based on your genetics and other factors, you are more likely to prefer **chocolate** ice cream over vanilla ice cream.

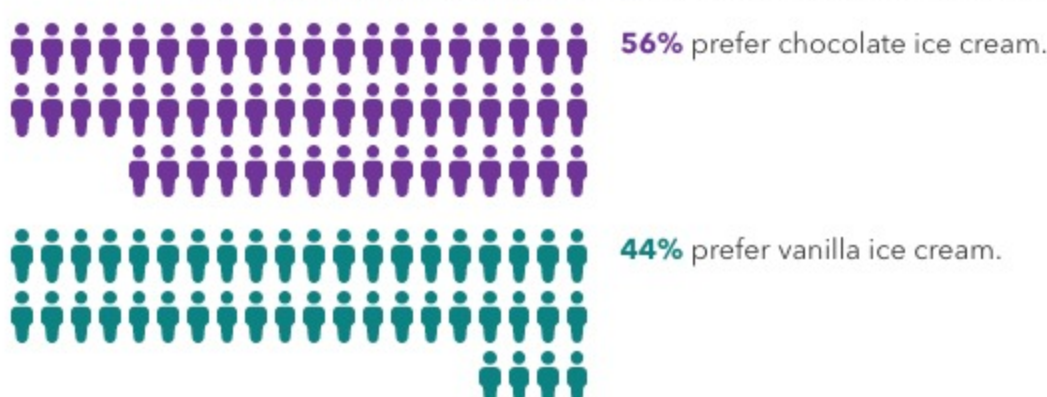
### Which flavor do you favor?

When it comes to ice cream, do you prefer vanilla or chocolate? Your ice cream flavor preference is likely influenced by culture and previous experiences, but the impact of your genetics may be the cherry on top.

### Many factors can influence your chances of preferring one ice cream flavor over another.

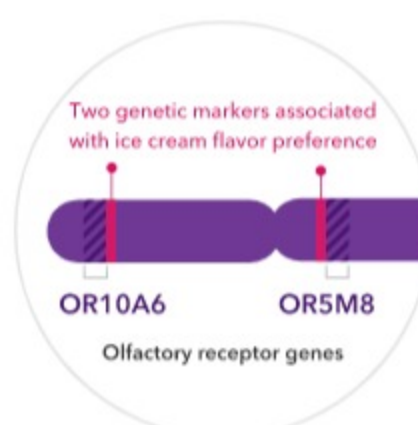
Scientists at 23andMe identified 739 genetic markers that are associated with preferring vanilla ice cream versus chocolate ice cream. In addition to genetics, other factors like age, sex, and ancestry can also influence your chances.

Of people with genetics and other factors like yours, we predict:



### The scoop on your flavor preference

In the tasteful debate of vanilla versus chocolate ice cream, your preference may actually be influenced by your sense of smell. Several genetic markers associated with ice cream flavor preference are located near olfactory receptor genes, like OR10A6 and OR5M8, which contain instructions for proteins that help detect odors. While you're eating, your brain combines information from odors and your taste buds to perceive flavor. It isn't known exactly why some people fancy vanilla ice cream and others prefer chocolate, but it's possible that genetic variation in olfactory receptor genes may affect the perception of these flavors.



### How we got your result ^

For this analysis, more than 840,000 23andMe research participants of European descent contributed their genetic data and survey responses on ice cream flavor preference. These research participants answered either vanilla or chocolate when asked which ice cream flavor they like best. From their genetic and survey data, we identified 739 genetic markers associated with ice cream flavor preference. We used these genetic markers together with non-genetic factors, specifically age and sex, to create a statistical model that predicts the chances of preferring vanilla ice cream over chocolate ice cream. The model was further recalibrated to be more accurate when applied to people of African American, East Asian, European, or Hispanic/Latino descent, bringing the total number of 23andMe research participants analyzed to more than 980,000. The statistical model for people of European descent has an AUC value of 0.58. ⓘ

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