

Finger Length Ratio

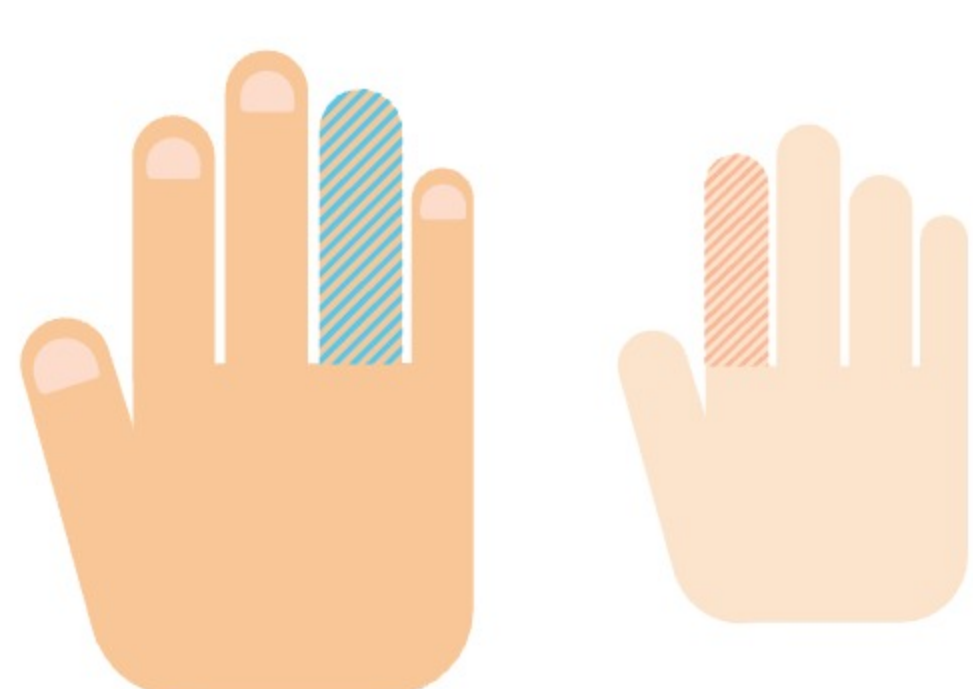
Overview

Scientific Details



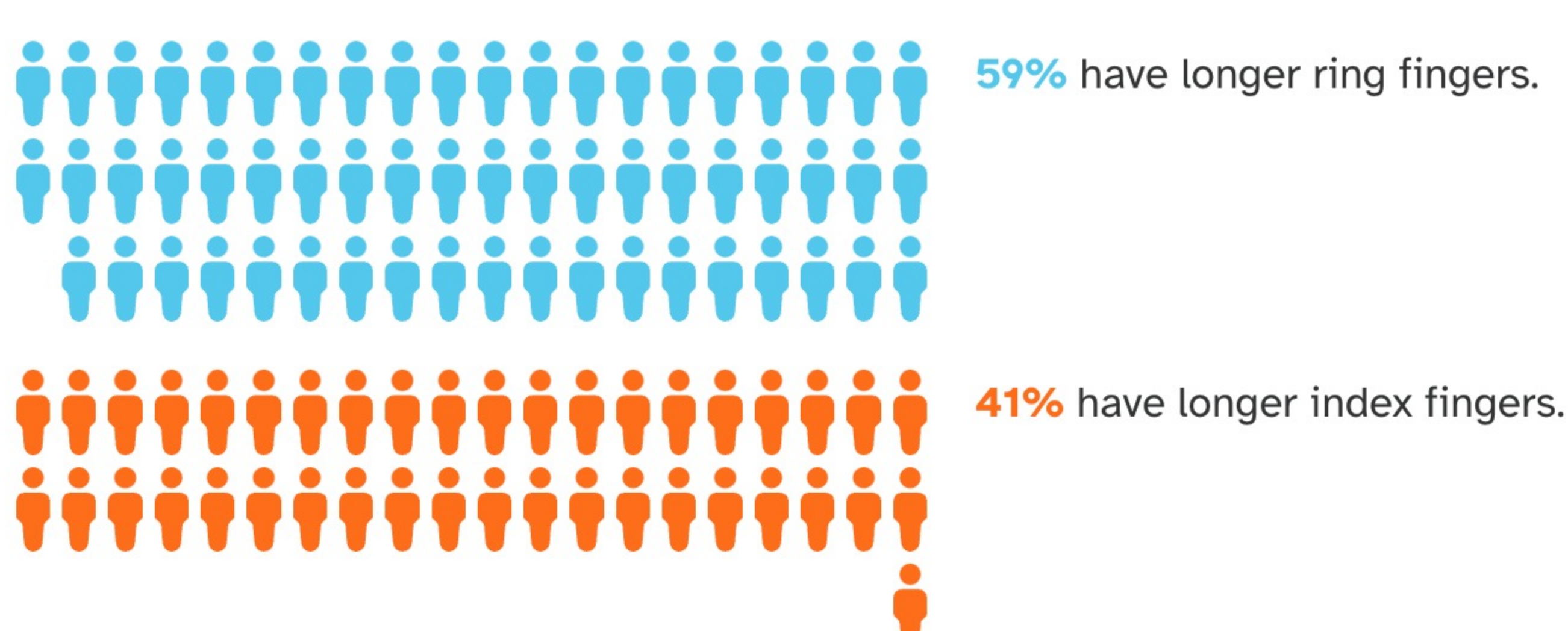
Handy information

Palm readers believe the future is written in your hands, but some scientists believe the relative length of your fingers says a lot more about you — and your genetics.



Jamie, the combination of your genetics and other factors makes you **likely to have longer ring fingers than index fingers.**

Of 23andMe research participants with results like yours:

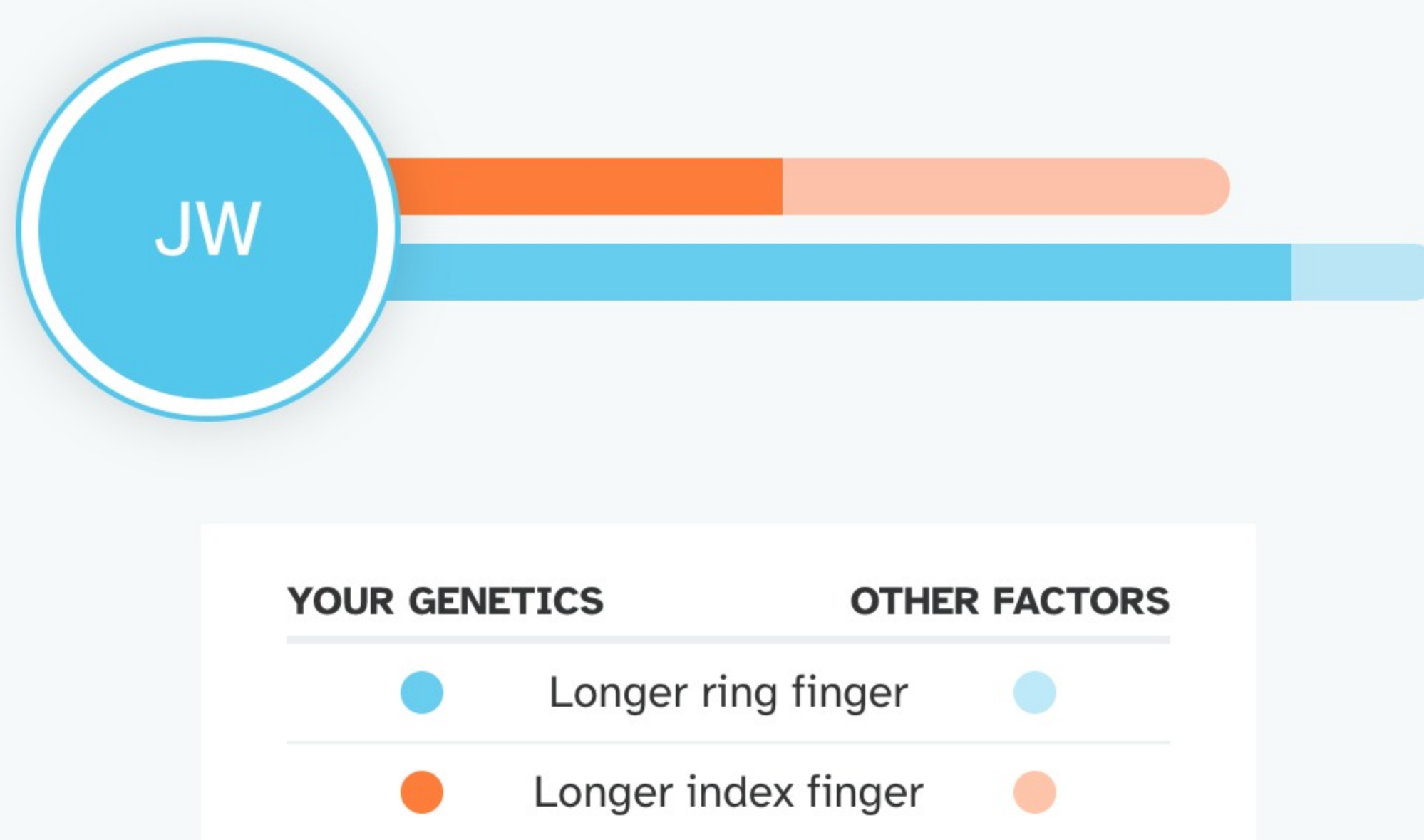


Which of your fingers is longer?

How did we calculate your result?

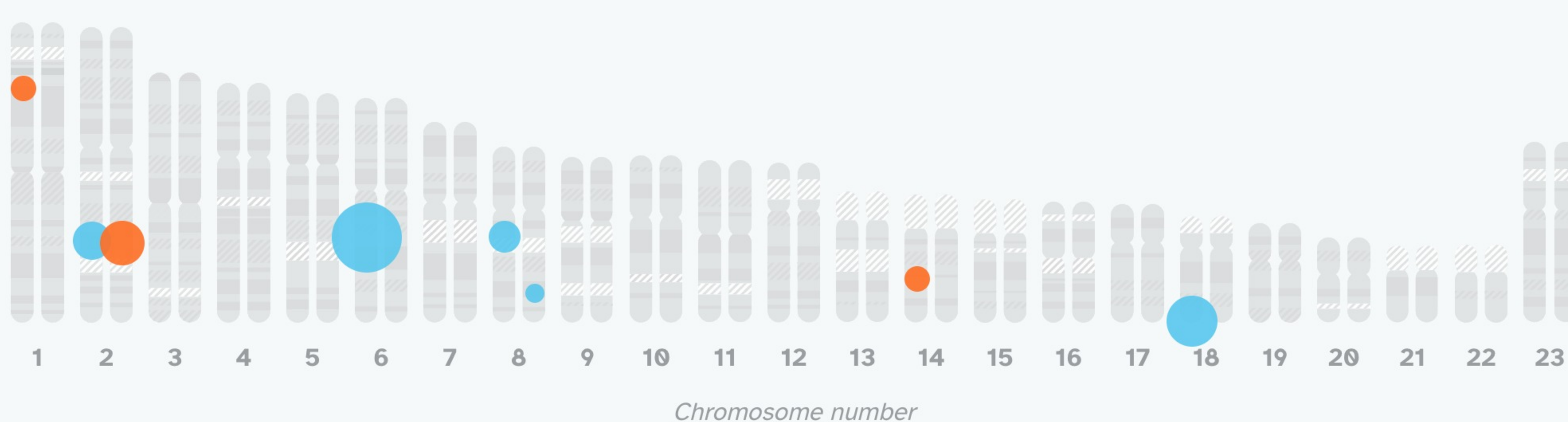
We added up the effect of your genetic variants at 15 places in your DNA (genetic markers) plus the effect of other factors, including your age and sex.

Total effect of your genetics + other factors



Breakdown of your genetics

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



At 5 of the genetic markers we looked at you have variants that make you more likely to have a longer ring finger, and at 3 you have variants that make you more likely to have a longer index finger. At 7 of the markers that we looked at, you have variants with no effect either way (not shown).

See Scientific Details

More about finger length ratio

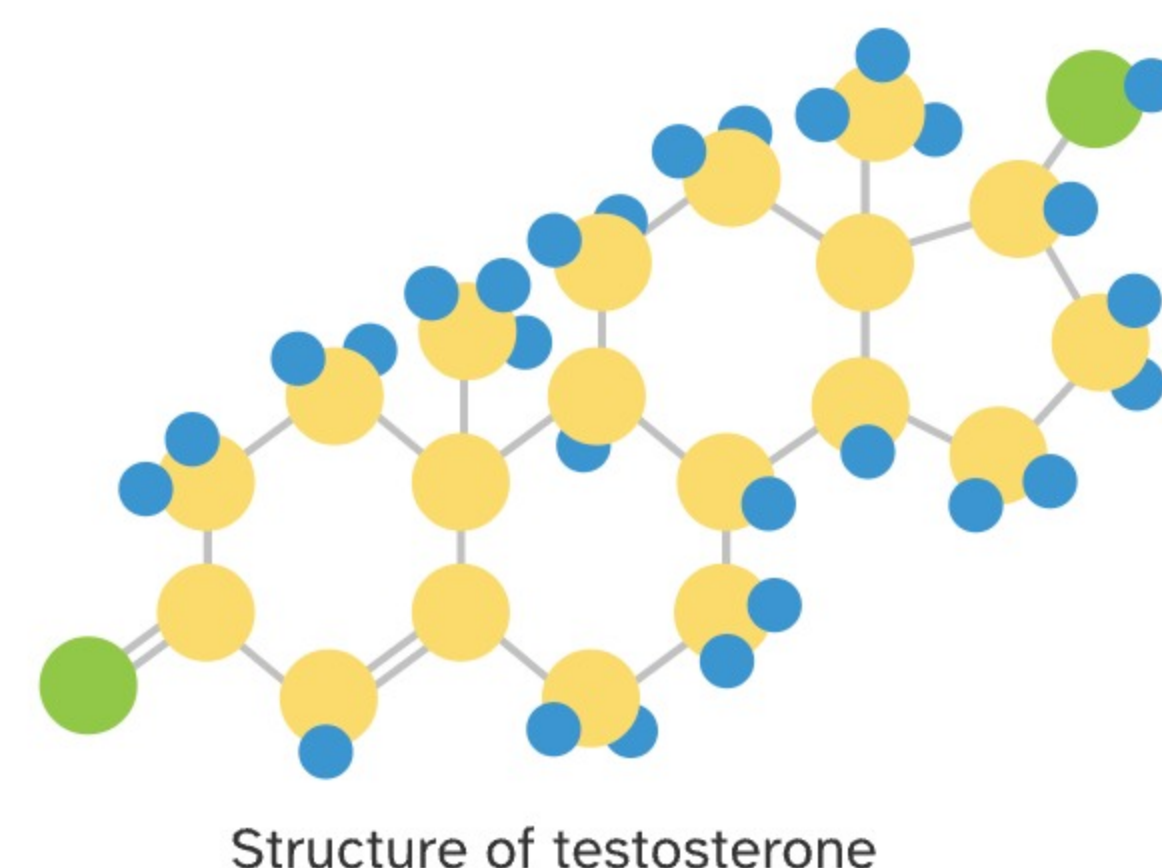
Look at your hands

Which finger is longer, your index finger or your ring finger? Everyone is a little different. Scientists have studied finger length ratio (index finger length divided by ring finger length) since the late 1800's. The first discovery was that on average, males tend to have lower ratios than females. This means that, in general, males are more likely to have longer ring fingers relative to their index fingers. For females, their fingers are often closer to equal in length.



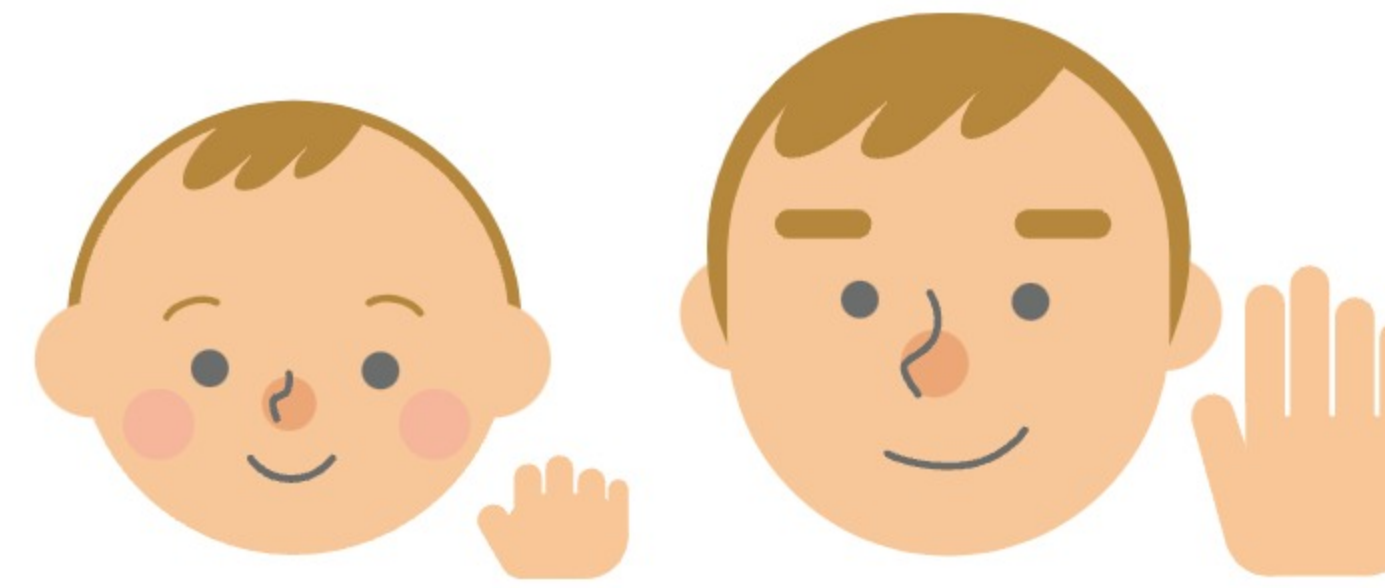
Hormones in the womb

Some research suggests that finger length ratio is influenced by the balance of testosterone and estrogen in the womb during early pregnancy. Higher testosterone exposure in the womb may be linked to having a lower finger length ratio, while lower testosterone exposure may be linked to having a higher finger length ratio. After birth, hands grow in perfect proportion to the size they were in the womb. So your finger ratio today is probably the same as it was when you were a baby.



Why do scientists study our hands?

If finger length ratio is linked to fetal hormone exposure and stays constant throughout the lifetime, it could be used as an indicator of the conditions a person was exposed to in the womb during pregnancy. Some scientists gather finger length information from adults to study how conditions in the womb may have influenced things like their health and behavior later in life.



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.

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

HEALTH & TRAITS

- Health & Traits Overview
- All Health & Traits Reports
- My Health Action Plan
- Health Predisposition
- Carrier Status
- Wellness
- Traits

RESEARCH

- Research Overview
- Surveys and Studies
- Edit Answers
- Publications

FAMILY & FRIENDS

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

Finger Length Ratio

[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 Finger Length Ratio result

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

About the Female Finger Length Ratio model

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

Number of customers used to create: **30,000**

Number of markers: **15**

Area Under Curve (AUC): **0.570**

Non-genetic factors: **Age**

Bin #	Index finger longer	Ring finger longer
1	26.49%	73.51%
2	30.72%	69.28%
3	32.87%	67.13%
4	33.94%	66.06%
5	36.92%	63.08%
6	35.46%	64.54%
7	36.03%	63.97%
8	38.75%	61.25%
9	40.64%	59.36%
10	42.16%	57.84%
11	41.02%	58.98%
JW 12	40.64%	59.36%
13	43.55%	56.45%
14	42.73%	57.27%
15	45.48%	54.52%
16	46.43%	53.57%
17	47.88%	52.12%
18	47.88%	52.12%
19	52.56%	47.44%
20	56.10%	43.90%
Overall European	40.91%	59.09%

References

- [Baker F. \(1888\). "Anthropological notes on the human hand." American Anthropologist. 1\(1\):51-76. ↗](#)
- [Garn SM et al. \(1975\). "Early prenatal attainment of adult metacarpal-phalangeal rankings and proportions." Am J Phys Anthropol. 43\(3\):327-32. ↗](#)
- [Gillam L et al. \(2008\). "Human 2D \(index\) and 4D \(ring\) finger lengths and ratios: cross-sectional data on linear growth patterns, sexual dimorphism and lateral asymmetry from 4 to 60 years of age." J Anat. 213\(3\):325-35. ↗](#)
- [Manning J et al. \(2014\). "Digit Ratio \(2D:4D\): A Biomarker for Prenatal Sex Steroids and Adult Sex Steroids in Challenge Situations." Front Endocrinol \(Lausanne\). 5:9. ↗](#)
- [Voracek M et al. \(2010\). "Relationships of toe-length ratios to finger-length ratios, foot preference, and wearing of toe rings." Percept Mot Skills. 110\(1\):33-47. ↗](#)
- [Warrington NM et al. \(2018\). "Genome-wide association study identifies nine novel loci for 2D:4D finger ratio, a putative retrospective biomarker of testosterone exposure in utero." Hum Mol Genet. 27\(11\):2025-2038. ↗](#)
- [Williams TJ et al. \(2000\). "Finger-length ratios and sexual orientation." Nature. 404\(6777\):455-6. ↗](#)
- [Zheng Z and Cohn MJ. \(2011\). "Developmental basis of sexually dimorphic digit ratios." Proc Natl Acad Sci U S A. 108\(39\):16289-94. ↗](#)

Change Log

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

Date	Change
Nov. 7, 2018	Finger Length Ratio report updated with revised content.
Dec. 15, 2017	Finger Length Ratio report updated with revised content and design.
June 22, 2017	Finger Length Ratio report separated from the Physical Characteristics report.
Oct. 21, 2015	Physical Characteristics report created.



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

HEALTH & TRAITS

Health & Traits Overview
All Health & Traits Reports
My Health Action Plan
Health Predisposition
Carrier Status
Wellness
Traits

RESEARCH

Research Overview
Surveys and Studies
Edit Answers
Publications

FAMILY & FRIENDS

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