

Maternal Haplogroup

You descend from a long line of female ancestors that can be traced back to eastern Africa over 150,000 years ago. These are the people of your maternal line, and your maternal haplogroup sheds light on their story.

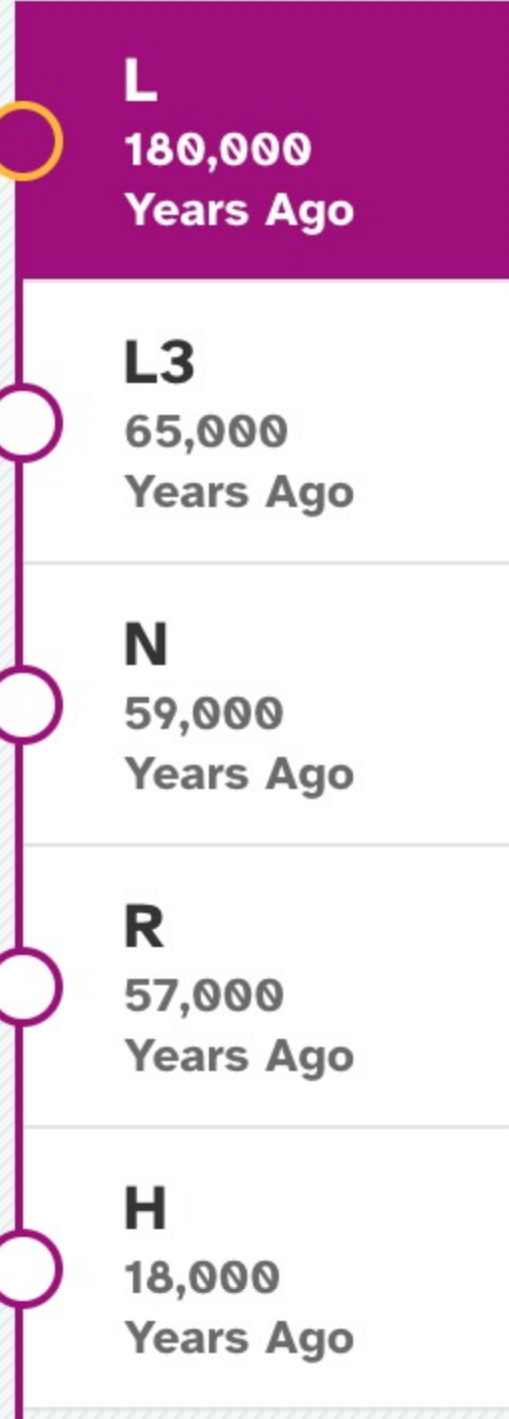
[Summary](#) [Scientific Details](#)



Jamie, your maternal haplogroup is H.

As our ancestors ventured out of eastern Africa, they branched off in diverse groups that crossed and recrossed the globe over tens of thousands of years. Some of their migrations can be traced through haplogroups, families of lineages that descend from a common ancestor. Your maternal haplogroup can reveal the path followed by the women of your maternal line.

Migrations of Your Maternal Line



Haplogroup L

If every person living today could trace his or her maternal line back over thousands of generations, all of our lines would meet at a single woman who lived in eastern Africa between 150,000 and 200,000 years ago. Though she was one of perhaps thousands of women alive at the time, only the diverse branches of her haplogroup have survived to today. The story of your maternal line begins with her.

Origin and Migrations of Haplogroup H

The common ancestor of haplogroup H likely lived in the Middle East less than 18,000 years ago, during the last great cold period of the Ice Age. Some of her descendants spread into Europe early on in the history of the haplogroup. Then, the peak of cold blanketed much of the continent in thick glaciers that pushed human populations out of the north and into a handful of warmer refuges along the Mediterranean Sea. When the ice receded thousands of years later, members of H who had sheltered in the Iberian Peninsula began to re-expand north into Western Europe.

However, the greatest expansion of haplogroup H took place even later. Around 12,000 years ago, people in the Fertile Crescent began to domesticate crops and transition to a more settled lifestyle. Waves of migration from the Middle East gradually brought this new way of life and new branches of haplogroup H to Europe, where they transformed the cultural and genetic landscape of the continent.

The maternal lines of haplogroup H flourished as European populations grew rapidly, and today over 40% of all Europeans belong to H! Though it is most dominant in Europe, haplogroup H is also found at lower frequencies in Asia, reaching south to Arabia and eastward to the western fringes of Siberia.

H is frequent among 23andMe customers. Today, you share your haplogroup with all the maternal-line descendants of the common ancestor of H, including other 23andMe customers.

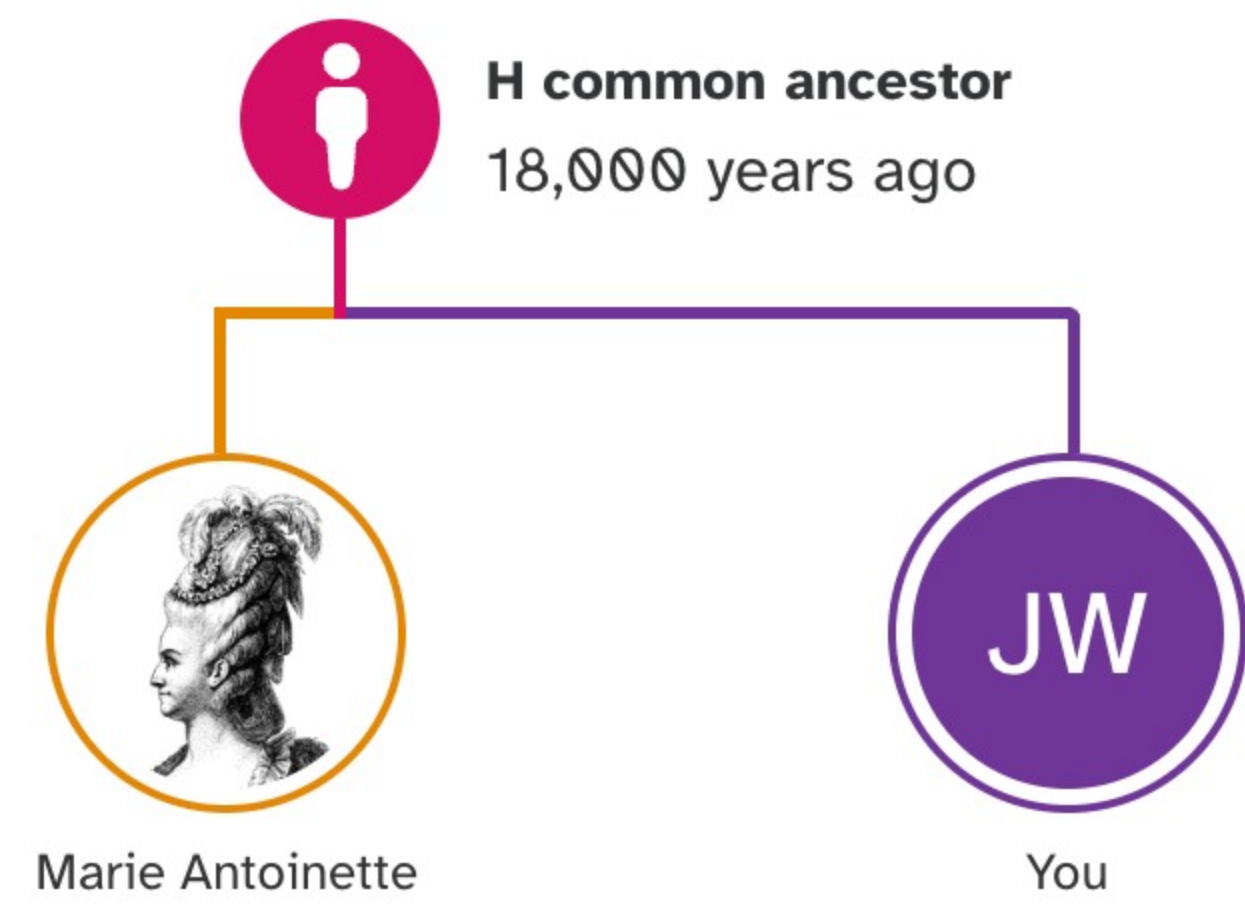
1 in 16 23andMe customers share your haplogroup assignment.

[See references](#)

Help us improve this report! Answer a few quick questions

Haplogroup H and the Royal Lines of Europe

Because it is so dominant in the general European population, haplogroup H also appears quite frequently in the continent's royal houses. Marie Antoinette, an Austrian Hapsburg who married into the French royal family, inherited the haplogroup from her maternal ancestors. So did Prince Philip, Duke of Edinburgh, whose recorded genealogy traces his female line to Bavaria. Scientists also discovered that famed 16th century astronomer Nicolaus Copernicus traced his maternal lineages to haplogroup H.



[See references](#)

The Genetics of Maternal Haplogroups

- Mitochondrial DNA**
- Maternal Inheritance
- Maternal Haplogroup Tree
- Tracing Female Migrations

Mitochondrial DNA

Maternal haplogroups are determined by sets of genetic variants in a tiny, unusual loop of DNA called mitochondrial DNA (mtDNA). As the name suggests, mtDNA is found in the mitochondria, small but mighty structures inside our cells that turn fuel from the food we eat into energy.

Mitochondria evolved over billions of years from an independent bacterial cell that was engulfed by another cell. Instead of becoming lunch, the bacterium helped its new host use oxygen to produce energy. Over time it completely lost its independence and became an integrated part of the larger cell.

Most cells in your body Your 23 pairs of chromosomes are found in a region of the cell called the nucleus

Mitochondria

Mitochondrial DNA mtDNA makes up a tiny fraction of your total DNA.

Do more with your Haplogroup results.

- Take survey**
Contribute to research and help us understand patterns of genetic variation around the world.
- Trace your maternal line**
Visit DNA Relatives to identify relatives that may be on your maternal line.



Give the gift of DNA discovery.

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Get reward

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- GrandTree
- Advanced DNA Comparison

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[Summary](#)
[Scientific Details](#)

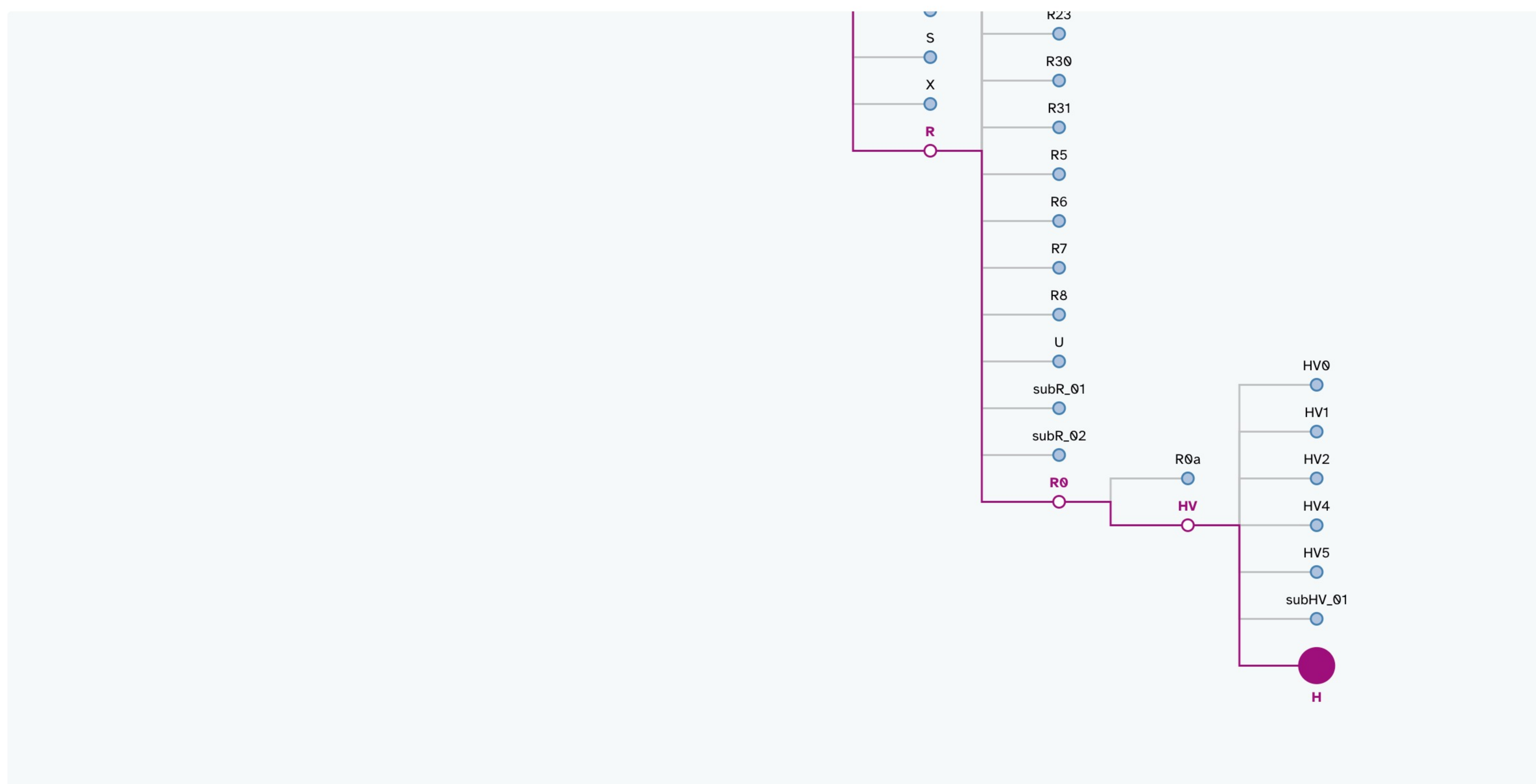
Your haplogroup is determined by your mitochondrial DNA.

Each generation, females pass down copies of their **mitochondrial DNA (mtDNA)** to their children. While most of your **genome** exists in 23 pairs of **chromosomes** that exchange pieces between generations in a process called **recombination**, mtDNA is transmitted unshuffled. Because of this unusual pattern of inheritance, mtDNA contains rich information about maternal lineages.

A small number of DNA changes, called mutations, generally occur from one generation to the next. Because mtDNA does not recombine between generations, these mutations accumulate in patterns that uniquely mark individual lineages. Scientists can compare the sequence differences that result by constructing a tree. This tree shows how maternal lineages relate to one another, including the observation that they all share a most recent common ancestor approximately 150,000 to 200,000 years ago.

The term "haplogroup" refers to a family of lineages that share a common ancestor and, therefore, a particular set of mutations. We identify your haplogroup by determining which branches of the mtDNA tree correspond to your DNA. Because more closely related lineages tend to share geographic roots, your haplogroup can provide insight into the origins of some of your ancient maternal-line ancestors.

Maternal haplogroups are named with sequences of letters and numbers that reflect the structure of the tree and how the branches relate to one another.



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
May 8, 2017	The standalone Maternal Haplogroup report was created, featuring new design elements and content.
Oct. 21, 2015	Haplogroups report created.



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