Your Ancestral Journey

The origin of our species lies in Africa: It's where we first evolved and where we've spent the majority of our time on Earth. We have since migrated to every corner of the globe, a journey that is written in our DNA.

With the sample you sent us, we ran a comprehensive analysis to identify thousands of genetic markers—breadcrumbs—in your DNA, which are passed down from generation to generation. By looking at the order in which these markers occurred over time, we can trace the journey of your ancestors out of Africa. Furthermore, with these markers we have created a human family tree. Everyone alive today falls on a particular branch of this family tree. We have examined your markers to determine which branch you belong to. The results of our analysis—your personal journey—are outlined below.

Your Genius Matches

(Present - 120,000 Years Ago)

We determine your Genius Matches through the analysis of either mitochondrial or Y-chromosome DNA, two parts of the DNA which are inherited directly, without mixing, from one ancestor in any given generation. Furthermore, if you go back 150,000 years, all seven billion humans share one single, common maternal ancestor: A ***Mitochondrial Eve***. Her male counterpart was ***Y- chromosome Adam***. Actually, any two individual people that ever lived may share a match (an Eve or an Adam) at a more recent point in time. First maternal cousins, for example, share a match at the grandmother level. Although it's true that every two living people share a common ancestor, in reality we share multiple ancestors. Some of these common ancestors lived centuries ago, while others lived and migrated across the earth millennia ago. Here we estimate when in time you shared a ***direct female*** or ***direct male*** ancestor with a famous historical genius. Learn about your own Genius Matches below.

0 Matches

12,000 - 0
Years Ago

No results for this time frame.

0 Matches

25,000 - 12,000
Years Ago

No results for this time frame.

0 Matches

45,000 - 25,000
Years Ago

No results for this time frame.

8 Matches

65,000 - 45,000
Years Ago

Petrarch
1304-1374
Poetic Genius

MATERNAL MATCH

Francesco Petrarca was an Italian scholar, poet, and humanist whose 14th century writings arguably ushered in the Renaissance movement across Italy, and eventually throughout Europe. Because of his drive to revisit the scholarly classics of the past and his ever inquisitive thirst for knowledge, he was regarded as one of the greatest scholars of his age.

Abraham Lincoln
1809-1865
Political Genius

MATERNAL MATCH

Most historians consider Lincoln the greatest of all U.S. Presidents. He was a gifted politician, and astute at bringing people together in mutual understanding and consensus. This 16th American President kept the young country from splintering during some of the darkest days in American history, the U.S. Civil War.

Queen Victoria
1819-1901
Royal Genius

MATERNAL MATCH

Victoria was the longest serving monarch of the British Empire, and oversaw some of the greatest advances scientifically, industrially, and across various aspects of society during an age of great advancement and development: The Victorian Era. Her tenure not only changed Great Britain, but had linguistic and societal impacts across the globe that are still lasting today.

Nicolas Copernicus
1473-1543
Mathematical Genius

MATERNAL MATCH

Copernicus was one of the greatest mathematicians and astronomers of all time. He established that the Sun, rather than the Earth, was the center of the Solar System. This concept set the foundation for the modern day understanding of our place in the universe. Copernicus could also speak multiple languages, and he dabbled in economics and politics as well.

Benjamin Franklin
1706-1790
Multi-faceted Genius

MATERNAL MATCH

Not only was Benjamin Franklin one of the founding fathers of the United States of America, but he was also a writer, publisher, physicist, naturalist, and economist, and his name is synonymous with wealth (a Benjamin is a $100 bill). Franklin is also credited with the idea of harnessing the power of electricity, a concept that completely altered the world as we know it.

Marie Antoinette
1755-1783
Historical Genius
MATERNAL MATCH

Marie Antoinette is one of the most famous leaders, turned villains of recent history. To this day she is remembered for her staunch conservatism and displays of wealth. She is attributed with the infamous phrase, “let them eat cake,” supposedly uttered in response to the poverty in France. She is ultimately remembered for her death by guillotine in the center of Paris.

Napoleon
1769-1821
Military Genius
MATERNAL MATCH

Napoleon was a political and military leader that rose to power in the late 18th century during the French Revolution. Under his rule, France rose to the position of European super power. Napoleon was later captured, tried, and found guilty. He eventually died in confinement in St. Helena island in the South Atlantic. His military tactics are still studied today, while his liberal political leanings continue to influence Europe and the world.

Maria Theresa
1717-1780
Royal Genius
MATERNAL MATCH

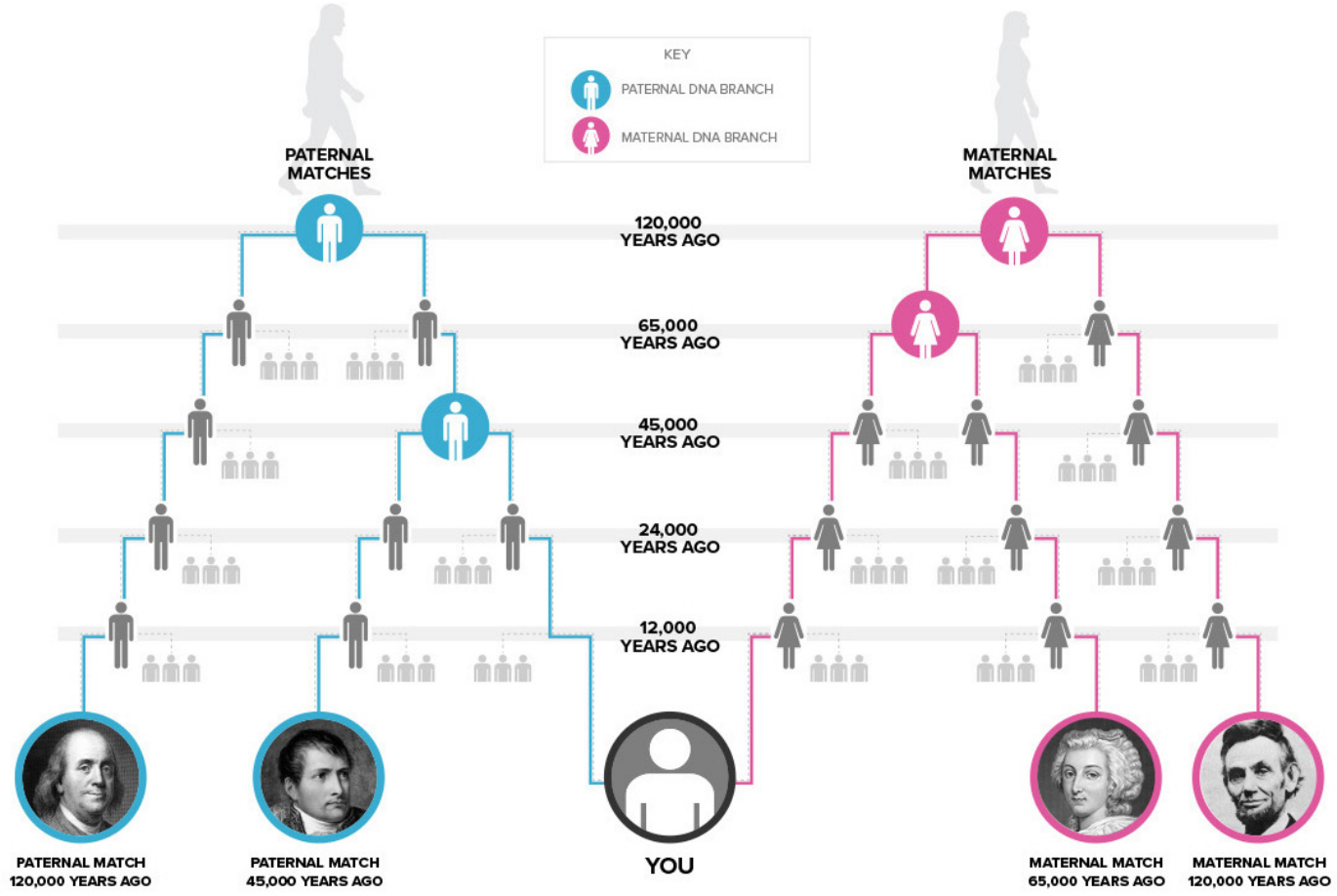
Maria Theresa was a queen among queens. Her titles continuously changed as the geography of continental Europe evolved as nations merged then split apart during the heart of the 18th century. Maria was at one time Holy Roman Empress, Queen of Bohemia, and Archduchess of Austria. She was mother to sixteen children, the most famous of which was her youngest daughter, Maria Antonia, also known as Marie Antoinette.

0 Matches

120,000 - 65,000
Years Ago

No results for this time frame.

The Science Behind Your Matches



The diagram above is illustrative and depicts both paternal and maternal branching to help you understand how the science behind matching works. In this example, the matches show when in ancient history your maternal and/or paternal line diverged or "branched" from that of a famous Genius (For example, Lincoln, 60,000 years ago). Male participants can get get both paternal and maternal matches, whereas female participants can only get maternal matches.

Have a question?

-How did NG define Genius?
National Geographic is very liberal in its definition of genius. Since we are looking predominantly at historical figures, our definition of genius is that of "remarkable" or "historic" figure. But, you know, we are all truly geniuses in our own ways.

-Can my DNA tell me if I'm a genius?
Although there are genes associated with the ability to learn and intelligence, we are not currently analyzing those genes or DNA markers with Genographic.

-Why do I see men in my maternal matches?
Since we all have mothers, we all carry mitochondrial DNA, which is inherited strictly through the mother's line. So, just like you and your brother have the same mother, you and your first male cousin have the same maternal-grandmother, and you and your male second cousin have the same maternal great-grandmother, you all share a direct maternal ancestor in the past, even if one or both of you are male. The same logic applies for your genius matches.

-Why do I see zero matches for some timeframes?
We compare your maternal and paternal DNA to a limited number of "geniuses," so it's quite likely that you don't have a match that falls into one of our specifically designated time blocks. That is all.

-Why don't I have any recent matches (12,000 – 0 years)?
In some cases your lineages may not have a match in the last 12,000 years. That doesn't mean that you don't share an ancestor with any of those people in that shorter time frame. It just means that you don't share a direct maternal or direct paternal match within the last 12,000 years.

-My closest match is 45,000 years ago, what does that mean?
Although you likely shared common ancestors with many geniuses in more recent times, we only track your direct maternal (mother's

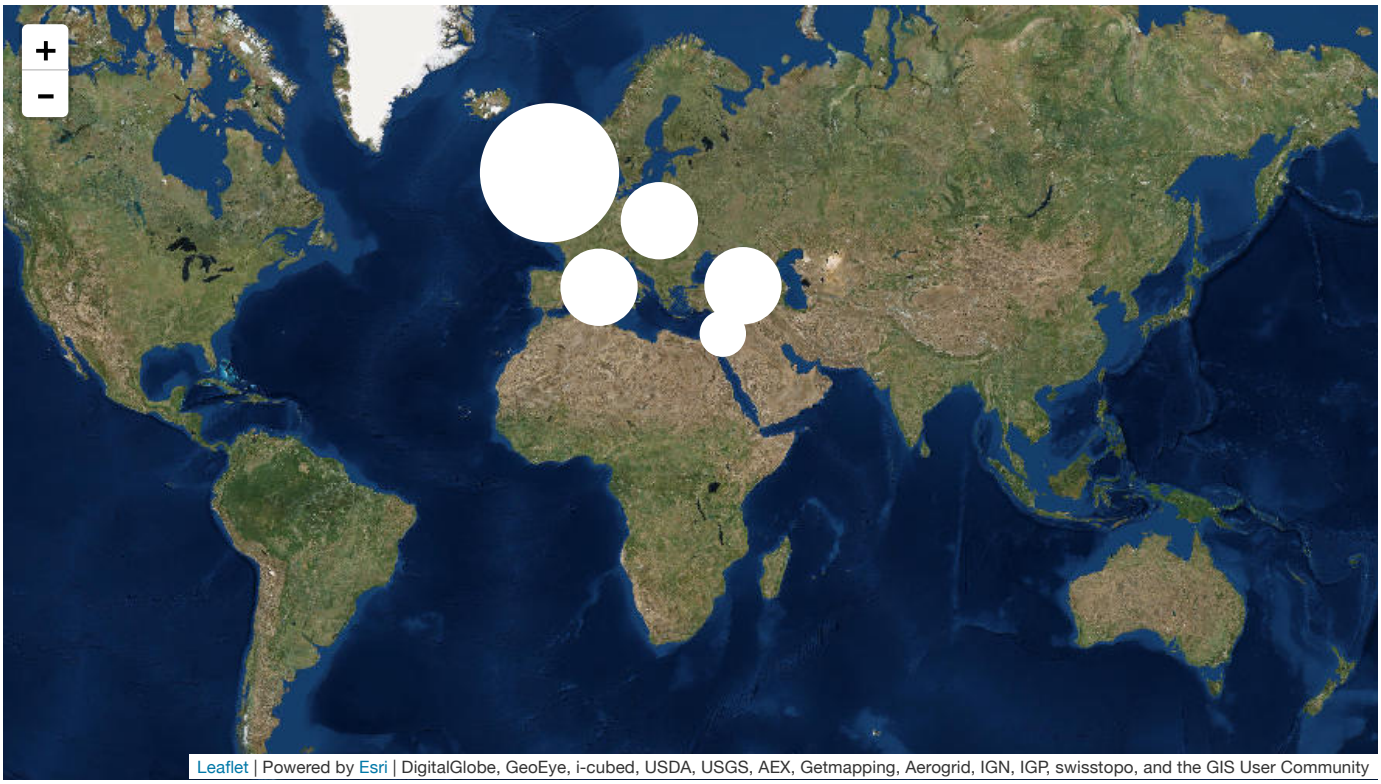
mother's mother...) and direct paternal (father's father's father...) line for both you and the genius. In your case, your most recent genius match on one of those two lines was 45,000 years ago.

Your Regional Ancestry

(500 Years to 10,000 Years Ago)

We are all more than the sum of our parts, but the results below offer some of the most fascinating and newest information possible with your Geno 2.0 Next Generation test. In this section, we display your affiliations with a set of twenty-two world regions. This information is determined from your entire genome, so we're able to see both parents' information, going back six generations, or more. Your percentages reflect both recent influences and ancient genetic patterns in your DNA due to how groups migrated to and from different regions, mixing for hundreds or even thousands of years. Your ancestors may have also mixed with ancient, now extinct hominid cousins, like Neanderthals. If you or your parents have an admixed background, this pattern can get complicated very quickly! Use the reference population matches below to help understand your results.

Your Results



REGIONS CONTINENTS

Northwestern Europe: 70%

This region of Northern Europe is a biogeographical composite of populations that include British, Scottish, Irish, Welsh, Northern French, Belgians, Dutch, Danish, and some Scandinavian and German groups. So, much more than an established historical population, it is a prehistorical region characterized early on by a long period of glaciation, with episodic habitation by hunter-gatherer groups

migrating from the south and east. With the advent of agriculture and the spread of plant domestication some 8,000 to 6,000 years ago, the people of Northwestern Europe grew from the mix of the early settlers and new farmers. Over the last 4,000 years, the region became subdivided into the ethnic and political entities we now know. This biogeographical region is seen in many people of European ancestry, as well as most people living in the U.S., Canada and Australia today. It is also seen in small percentages in groups from Latin America, as well as in countries that were part of the British Empire of the 18th and 19th centuries.

Eastern Europe: 15%

The Eastern and Central European component is predominantly associated with cultures from Poland, Germany, the former Austria-Hungarian Empire and the former Soviet republics of Belarus and Ukraine, and Western Russia. The same migration of hunter-gatherers who moved north to Finland and northern Russia are at the core of the earliest Eastern Europeans. Eventually, these groups met and mixed with the farmers who pushed in from southern Europe and the Near East, giving rise to the modern Eastern and Central Europeans. Thus this part of your ancestry has deep ties with and influences from multiple sources. They are a combination of Middle Eastern farmer, early European hunters, and Central Asian nomads. Today, this component is seen across various Eurasian groups, with the highest percentage found in Polish, Czech, Slovaks, Russians, Hungarians, Ukranians, as well as some German, Austrian and Balkan populations.

West Mediterranean: 6%

This region includes the Mediterranean coast of Spain, Southern France, parts of Italy, and Sardinia and Corsica. Sardinia is an island of scientific intrigue. Although it is approximately 460 kilometers away from Rome on the Italian mainland, it has been isolated from Italy and Central and Eastern Europe for much of human history. It was not populated during the ice age, as most of the continent was, rendering the islanders as possible descendants of the first farmers of Europe who arrived some 8,000 years ago. The subsequent isolation of islanders and the Western Mediterranean allowed the group to evolve as a unique European cluster, distinct from Italians. Yet, this cluster is found outside of the region as well, particularly in France and Iberia. Western Mediterranean ancestry is deeply fused with ancestry from the Iberian Peninsula, and to a lesser degree continental Italy.

Asia Minor: 6%

Asia Minor consists of modern-day Turkey, parts of Greece, Georgia, Armenia and the northern Middle East. This component of global DNA originated in Southwest Asia and along the shores of the Mediterranean and Black Seas some 30,000 years ago. Although this region of the world was home to a Homo erectus subspecies (H. erectus georgicus) and later to Neanderthals, the true ancestors to the Asia Minor DNA component were the Homo sapiens hunter-gatherers, some of which later developed the world's earliest farming. But Asia Minor ancestry is complex, since it is at a crossroads of Europe, Asia and Africa, making it a well-traveled path for those leaving Africa, but also going east to west and back again. This prehistoric and historic "highway" possibly peaked during the period of the famous Silk Road, which traversed Asia Minor and established a connection between that region and Central Asia that still persists today. Furthermore, the historic expansion of Arabic speakers during the growth and spread of Islam brought Arabian and Middle Eastern groups to Asia Minor. This ancestry is in fact strongest in Turks from Iraq, Syria, and the Caucasus. And ethnic groups such as the Druze and Assyrians also have clear roots in Asia Minor, suggesting that their DNA is native to the region.

Jewish Diaspora: 4%

The demands of history have scattered Ashkenazi Jewish people throughout the world, but this component of your DNA is rooted in the ancient Near East. Following the cluster's origins was the fusion of the Ashkenazi Diaspora and Europe. Judaism is a religion but the Jewish people are also a nation, from which numerous Jews have diversified into distinct branches during more modern times. These branches include the Ashkenazi, Sephardi, and Mizrahi, as well as the Bene and Beta Israel. Despite these different branches, these populations are unified genetically, likely from a common Middle Eastern ancestry. The Jewish Diaspora lineage is most common in the Jews descended throughout the world. Derived from populations from within Central and Eastern Europe, these groups spread globally during the 20th century with a large concentration living today in the United States.

What Your Results Mean

We are all more than just the sum of our parts, but the regional percentages below offer some of the most fascinating information in your Geno test. In this section, we display your affiliations based on a set of twenty-two world regions. This information is captured from points across your entire genome, so we're able to see both parents' information going back six generations or more. Your percentages reflect mostly recent influences, yet they may also show some ancient patterns in your DNA due to mixing of groups from different regions over hundreds, if not thousands, of years. If you have a very mixed background, the pattern can get complicated quickly. Use the reference population matches below to help understand your unique results.

Your First Reference Population: British (England)

This reference population is based on people living in England, in the United Kingdom. The dominant Great Britain and Ireland and smaller Scandinavian components reflect distinct remnants from early settlers in northern Europe, hunter-gatherers who arrived there more than 30,000 years ago. The Western and Central and Southern European percentages likely arrived later, first with the spread of agriculture from the Fertile Crescent in the Middle East over the past 8,000 years, and much later by the reach of the Roman Empire. English populations today retain links to both the early Europeans and later migrants.

BRITISH (ENGLAND)

Northwestern Europe: 74%

Southwestern Europe: 11%

Eastern Europe: 8%

Northeastern Europe: 4%

Jewish Diaspora: 3%

YOU

Northwestern Europe: 70%

Eastern Europe: 15%

West Mediterranean: 6%

Asia Minor: 6%

Jewish Diaspora: 4%

Your Second Reference Population: Dutch

This reference group is based on a Dutch population. This population is similar in composition to that from Germany but differs in the percentage mixture (or gene flow) from British and Scandinavian regions to the north and west of the region. The large western/central European component is itself a genetic mixture of populations that first reached Europe as hunter-gatherers some 40,000 years ago but later intermixing with agriculturalists arriving in the past 10,000 years from the Middle East.

DUTCH

Northwestern Europe: 77%

Eastern Europe: 19%

Jewish Diaspora: 4%

YOU

Northwestern Europe: 70%

Eastern Europe: 15%

West Mediterranean: 6%

Asia Minor: 6%

Jewish Diaspora: 4%

Your Deep Ancestry
(1,000 Years - 100,000 Years Ago)

Introduction to Your Story

We will now take you back through the stories of your distant ancestors and show how the movements of their descendants gave rise to your lineage.

Each segment on the map above represents the migratory path of successive groups that eventually coalesced to form your branch of the tree. We start with the marker for your oldest ancestor, and walk forward to more recent times, showing at each step the line of your ancestors who lived up to that point.

What is a marker? Each of us carries DNA that is a combination of genes passed from both our mother and father, giving us traits that range from eye color and height to athleticism and disease susceptibility. As part of this process, the Y-chromosome is passed directly from father to son, unchanged, from generation to generation down a purely male line. Mitochondrial DNA, on the other hand, is passed from mothers to their children, but only their daughters pass it on to the next generation. It traces a purely maternal line.

The DNA is passed on unchanged, unless a mutation—a random, naturally occurring, usually harmless change—occurs. The mutation, known as a marker, acts as a beacon; it can be mapped through generations because it will be passed down for thousands of years.

When geneticists identify such a marker, they try to figure out when it first occurred, and in which geographic region of the world. Each marker is essentially the beginning of a new lineage on the family tree of the human race. Tracking the lineages provides a picture of how small tribes of modern humans in Africa tens of thousands of years ago diversified and spread to populate the world.

By looking at the markers you carry, we can trace your lineage, ancestor by ancestor, to reveal the path they traveled as they moved out of Africa. Our story begins with your earliest ancestor. Who were they, where did they live, and what is their story? Click “Next” to begin.

Photograph by Claudia Wiens, Alamy

Branch: L3

Age: 67,000 Years Ago

Location of Origin: East Africa

This woman’s descendants would eventually account for both out-of-Africa maternal lineages, significant population migrations in Africa, and even take part in the Atlantic Slave Trade related dispersals from Africa.

The common direct maternal ancestor to all women alive today was born in East Africa around 180,000 years ago. Dubbed “Mitochondrial Eve” by the popular press, she represents the root of the human family tree. Eve gave rise to two descendant lineages known as L0 and L1’2’3’4’5’6, characterized by a different set of genetic mutations their members carry.

Current genetic data indicates that indigenous people belonging to these groups are found exclusively in Africa. This means that, because all humans have a common female ancestor, and because the genetic data shows that Africans are the oldest groups on the planet, we know our species originated there.

Eventually, L1’2’3’4’5’6 gave rise to L3 in East Africa. It is a similar story: an individual underwent a mutation to her mitochondrial DNA, which was passed onto her children. The children were successful, and their descendants ultimately broke away from L1’2’3’4’5’6, eventually separating into a new group called L3.

While L3 individuals are found all over Africa, L3 is important for its movements north. Your L3 ancestors were significant because they are the first modern humans to have left Africa, representing the deepest branches of the tree found outside of that continent.

From there, members of this group went in a few different directions. Many stayed on in Africa, dispersing to the west and south. Some L3 lineages are predominant in many Bantu-speaking groups who originated in west-central Africa, later dispersing throughout the continent and spreading this L3 lineage from Mali to South Africa. Today, L3 is also found in many African-Americans.

Other L3 individuals, your ancestors, kept moving northward, eventually leaving the African continent completely. These people gave rise to two important macro-haplogroups (M and N) that went on to populate the rest of the world.

Why would humans have first ventured out of the familiar African hunting grounds and into unexplored lands? It is likely that a fluctuation in climate may have provided the impetus for your ancestors' exodus out of Africa.

The African Ice Age was characterized by drought rather than by cold. Around 50,000 years ago the ice sheets of northern Europe began to melt, introducing a period of warmer temperatures and moister climate in Africa. Parts of the inhospitable Sahara briefly became habitable. As the drought-ridden desert changed to savanna, the animals your ancestors hunted expanded their range and began moving through the newly emerging green corridor of grasslands. Your nomadic ancestors followed the good weather and plentiful game northward across this Saharan Gateway, although the exact route they followed remains to be determined.

Point of Interest

The L branch is shared by all women alive today, both in Africa and around the world. The L3 branch is the major maternal branch from which all mitochondrial DNA lineages outside of Africa arose.

Photograph by Helene Rogers, Alamy

Branch: N

Age: About 60,000 Years Ago

Location of Origin: East Africa or Asia

Your next ancestor is the woman whose descendants formed haplogroup N. Haplogroup N comprises one of two groups that were created by the descendants of L3.

One of these two groups of individuals moved north rather than east and left the African continent across the Sinai Peninsula, in present-day Egypt. Also faced with the harsh desert conditions of the Sahara, these people likely followed the Nile basin, which would have proved a reliable water and food supply in spite of the surrounding desert and its frequent sandstorms.

Descendants of these migrants eventually formed haplogroup N. Early members of this group lived in the eastern Mediterranean region and western Asia, where they likely coexisted for a time with other hominids such as Neanderthals. Excavations in Israel's Kebara Cave (Mount Carmel) have unearthed Neanderthal skeletons as recent as 60,000 years old, indicating that there was both geographic and temporal overlap of these two hominids. This likely accounts for the presence of Neanderthal DNA in people living outside of Africa.

Some members bearing mutations specific to haplogroup N formed many groups of their own which went on to populate much of the rest of the globe. These descendants are found throughout Asia, Europe, India, and the Americas. However, because almost all of the mitochondrial lineages found in the Near East and Europe descend from N, it is considered a western Eurasian haplogroup.

After several thousand years in the Near East, members of your group began moving into unexplored nearby territories, following large herds of migrating game across vast plains. These groups broke into several directions and made their way into territories surrounding the Near East.

Today, haplogroup N individuals who headed west are prevalent in Turkey and the eastern Mediterranean, they are found further east in parts of Central Asia and the Indus Valley of Pakistan and India. And members of your haplogroup who headed north out of the Levant across the Caucasus Mountains have remained in southeastern Europe and the Balkans. Importantly, descendants of these people eventually went on to populate the rest of Europe, and today comprise the most frequent mitochondrial lineages found there.

Point of Interest

This line and its sister lineage are the only two founding lineages to expand out of Africa.

Notable People

Ann Curry of the Today Show belongs to this lineage.

Photograph by Chris Willson, Alamy

Branch: R

Age: About 55,000 Years Ago

Location of Origin: West Asia

After several thousand years in the Near East, individuals belonging to a new group called haplogroup R began to move out and explore the surrounding areas. Some moved south, migrating back into northern Africa. Others went west across Anatolia (present-day Turkey) and north across the Caucasus Mountains of Georgia and southern Russia. Still others headed east into the Middle East, and on to Central Asia. All of these individuals had one thing in common: they shared a female ancestor from the N clan, a recent descendant of the migration out of Africa.

The story of haplogroup R is complicated, however, because these individuals can be found almost everywhere, and because their origin is quite ancient. In fact, the ancestor of haplogroup R lived relatively soon after humans moved out of Africa during the second wave, and her descendants undertook many of the same migrations as her own group, N.

Because the two groups lived side by side for thousands of years, it is likely that the migrations radiating out from the Near East comprised individuals from both of these groups. They simply moved together, bringing their N and R lineages to the same places around the same times. The tapestry of genetic lines became quickly entangled, and geneticists are currently working to unravel the different stories of haplogroups N and R, since they are found in many of the same far-reaching places.

Point of Interest

Descendants of this line dominate the European maternal landscape, making up 75 to 95 percent of the lineages there.

Photograph by James P. Blair, National Geographic

Branch: U

Age: Around 47,000 Years Ago

Location of Origin: West Asia

Descending from the R group, a woman gave rise to people who now constitute haplogroup U. Because of the great genetic diversity found in haplogroup U, it is likely that this woman lived around 47,000 years ago.

Her descendants gave rise to several different subgroups, some of which exhibit very specific geographic homelands. The very old age of these subgroups has led to a wide distribution; today they harbor specific European, northern African, and Indian components, and are found in Arabia, the northern Caucasus Mountains, and throughout the Near East.

One interesting subgroup is U6, which branched off from haplogroup R while still in the Middle East, moved southward, and today is found in parts of northern Africa. Today, U6 individuals are found in around ten percent of people living in North Africa.

Other members of the larger haplogroup U descend from a group that moved northward out of the Near East. These women crossed the rugged Caucasus Mountains in southern Russia, and moved on to the steppes of the Black Sea. These individuals represent movements from the Black Sea steppes west into regions that comprise the present-day Baltic States and western Eurasia. This grassland then served as the home base for subsequent movements north and west.

Today, this line is part of populations in Europe, West Asia (including Arabia), North Africa, India, and the North Caucasus Mountains. In Europe, this lineage averages 7 percent of the population. In Scandinavian countries (Norway, Sweden, the Netherlands, etc.) it is between 9 and 16 percent of the population. In England, it is about 12 percent of the population. Toward the Mediterranean, this line is between 10 and 12 percent of the population in Croatia and Greece.

Point of Interest

A subtype of this lineage links the Saami people in Scandinavia to Berber populations in North Africa.

Photograph by Julian Nieman, Alamy

Branch: K

Age: About 27,000 Years Ago

Location of Origin: West Asia

Haplogroup K spawned from a group of individuals who descend from a woman in the U branch of the tree. Because of the great genetic diversity found in haplogroup K, it is likely that she lived around 27,000 years ago.

Her descendants gave rise to several different subgroups, some of which exhibit very specific geographic homelands. The very old age of these subgroups has led to a wide distribution; today they harbor specific European, northern African, and Indian components, and are found in Arabia, the northern Caucasus Mountains, and throughout the Near East.

While some members of your haplogroup headed north into Scandinavia, or south into North Africa, most members of your haplogroup K stem from a group of individuals who moved northward out of the Near East. These women crossed the rugged

Caucasus Mountains in southern Russia, and moved on to the steppes of the Black Sea.

Around half of all Ashkenazi Jews trace their mitochondrial lineage back to one of four women, and your haplogroup K represents a lineage that gave rise to three of them. While this lineage is found at a smaller frequency in non-Ashkenazi Jews, the three K lineages that helped found the Ashkenazi population are seldom found in other populations. While virtually absent in Europeans, they appear at frequencies of three percent or higher in groups from the Levant, Arabia, and Egypt. This indicates a strong genetic role in the Ashkenazi founder event, which likely occurred in the Near East.

The term "Ashkenazi" refers to Jews of mainly central and eastern European ancestry. Most historical records indicate that the founding of Ashkenazi Jewry took place in the Rhine Basin where it subsequently underwent vast population expansions. In more recent times, the Ashkenazi population was estimated at approximately 25,000 individuals around 1300 A.D., whereas that number had increased to about 8,500,000 individuals by the turn of the twentieth century.

Point of Interest

Three of this line's descendant branches make up three of the four most common maternal lineages in Ashkenazi Jews.

Notable People

Political satirist and comedian Stephen Colbert is a member of this lineage, as is Katie Couric of the Today Show. The Neolithic-era man whose body was discovered in the Italian Alps in the 1990s, Ötzi the Iceman, also belongs to this line.

Branch: K2

Age: About 21,000 years old

Location of Origin: West Asia

Haplogroup K spawned from a group of individuals who descend from a woman in the U branch of the tree. Because of the great genetic diversity found in haplogroup K, it is likely that she lived around 27,000 years ago.

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Branch: K2a

Age: 9,100 ± 2,230 Years Ago
Location of Origin: West Asia

From West Asia, groups containing women from this lineage spread to Anatolia and on through Europe.

Today, this lineage is present in the United Arab Emirates (8 percent), Wales (5 percent), Northern Ireland (5 percent), Spain (3 percent), the Netherlands (1 to 2 percent), and France (1 to 2 percent).

Note: This branch is not accompanied by a major movement on the map, and research on this branch is continuing.

Point of Interest

One descendant branch of this lineage is part of Jewish Diaspora population groups. This particular branch may be responsible for the frequency of this line in modern Mexico, where it is 1 to 2 percent of maternal lineages.

Heatmap for K2

A heat map for your specific haplogroup is not yet available. We hope that as more people from around the world participate in the project we will be able to create a more specific map. We're showing you a heat map for an earlier branch in your path: **K2**.

This next step in your journey is a map showing the frequency of your haplogroup (or the closest haplogroup in your path that we have frequency information for) in indigenous populations from around the world, providing a more detailed look at where your more recent ancestors settled in their migratory journey. What do we mean by recent? It's difficult to say, as it could vary from a few hundred years ago to a few thousand years ago depending on how much scientists currently know about your particular haplogroup. As we test more individuals and receive more information worldwide, this information will grow and change.

The colors on the map represent the percentage frequency of your haplogroup in populations from different geographic regions—red indicates high concentrations, and light yellow and grey indicate low concentrations. The geographic region with the highest frequency isn't necessarily the place where the haplogroup originated, although this is sometimes the case.

The map of K2 shows that it is found in western Europe and northern Russia as well as on the Arabian Peninsula. This distribution may be due to multiple waves of migrations during different periods, including during the spread of farming during the Neolithic period, around 10,000 years ago.

Does this mean you're related to people in the areas highlighted on your map? Distantly, yes! We are all connected through our ancient ancestry. In order for us to learn more ancestry information about where haplogroups settled in more recent times, please choose to contribute your results to science (check the checkbox during Login or from the Account Settings tab of your Profile), and fill out your ancestry information in the Profile section of the site. Also be sure to tell your own story in the Our Story section.

Your Hominin Ancestry

(50,000 Years Ago and Older)

Your Hominin Ancestry

When our ancestors first migrated out of Africa around 60,000 years ago, they were not alone. At that time other species of hominin—our evolutionary cousins—walked the Eurasian landmass. One of these cousins was the Neanderthals. As our modern human ancestors migrated throughout Eurasia, they encountered these hominins and interbred, resulting in a small amount of Neanderthal DNA, for example, being introduced into the modern human gene pool.

Most non-Africans are about 1.1 percent Neanderthal. This percentage is calculated using a sophisticated analytical method that looks at parts of your DNA that you share with these hominin populations, as well as your complete regional ancestral components. The science around this calculation is new, and it is thanks to participation from citizens like you, that we continue to learn more and improve on this method. For this reason, your hominin result may change slightly over time as our accuracy and understanding improves.

NEANDERTHAL

*Out of a maximum of 5%