

So You've Taken an AncestryDNA Test: A guide for people who *might* be interested in genealogy

By Ellen Anderson

Congratulations on taking an AncestryDNA Test! The test is a powerful tool but its full potential is only realized in conjunction with research. It is mostly up to you what becomes of your DNA results but it is also a little up to the people you were matched with (your *matches*) and a little up to fate how much the paper trail will tell you about your matches. I have compiled this document in hopes of providing a little basic information for a person who has taken an AncestryDNA test but has never done genealogy research. You might be trying to decide whether or not it is worth all the work required to figure out how all your matches relate to you. While I think it definitely is worth it, I have tried to provide you with enough information to make that decision for yourself. I apologize in advance, I tried my hardest not to overwhelm you but this got a little out of hand. Sorry!

A case for genealogy...

I want to start by explaining the benefits of doing genealogy, whether you take a test or not, because it does go way beyond a DNA test. In fact cultures have been recording genealogy since ancient times, just look at the Bible or East Asian tombstones. However, genetic genealogy has been around less than 20 years. It is a new tool, but it is by no means a required part of successful genealogy research. I would say that while the DNA results have been fun or interesting to me, compiling my family tree has been infinitely more rewarding than identifying my matches. I admit that at 27 years old I am a digital native genealogist but the reason I fell in love with genealogy a few years ago is because in the 21st century there's so much information online that it becomes an internet search challenge to me. I have used the internet to learn all kinds of things about relatives going back to the 1600s and even locate some living relatives! And if the information I need is not online (and certainly it isn't all online) there are plenty of online resources that allow me to learn about offline records and how to use them effectively.

What I love best about genealogy though is uncovering stories about interesting people and their lives. For example, I have found out my 7x great grandfather was a ship captain that was one of few survivors of a Scottish colonization attempt in Panama and went on to be the governor of New Jersey for 18 days. I have found out his grandson was a POW in the Revolutionary War and I have a court testimony about his experience. I have found out my great-grandfather was married 4 times and that my grandmother had at least 2 half siblings she never knew about. And this is just one side of the family!

Almost every time I sit down to do research I'm calling up my parents with another story about our ancestors. It is just so fascinating to me how seemingly small documents can start to come together and shape stories about people's lives. A newspaper announcement combined with a city directory and two marriage licenses tell me that my great-grandfather met his wife because she was a colleague's sister and they created a ruse to fool her parents so they could elope two states over at a double wedding with his brother. All of the stories I have learned were pieced together from records I found. No one sat down and told them to me and no one wrote them in a book. They were there waiting for me to assemble and that is why genealogy is exciting to me.

The great thing about genealogy as a hobby is that it can happen at your own pace and you can accomplish a lot without spending any money. I didn't pay a dime for genealogy until I was at least 6 months into serious research and frugal genealogists get by paying very little to do their work. There are

a multitude of free resources available on the internet and in physical repositories that can help you find information about ancestors and learn how to do so. While it's true that relatives age and records deteriorate, another feature of genealogy is its flexible timeline. For the most part we are looking for dead people and they're not going anywhere! When life gets in the way I can set my research aside for months at a time and I can come back to it when I am ready. I can spend as much or little time as I have and still make progress.

Then of course there are the benefit of doing genealogy. Without genealogy I would probably never have asked my parents questions that led to hearing their memories, or appreciated that my grandfather was the 4th generation owner of a family business, or understood the hardships my ancestors endured in moving a distance that would only take a few hours today. I wouldn't be here without these people and that alone makes their lives valuable to me. Not only that but the product of my work can be shared with my family, connect me with undiscovered family and be passed on to my future family.

Back to reality...

Ok, the sales pitch is over. Obviously, it's totally fine if you don't think this will ever be you. I understand that genealogy isn't everyone's cup of tea. Some people genuinely don't have an interest in learning about their matches and I respect that. In my opinion, the minimum everyone should do is ask about and record the stories of their relatives before they pass away and the memories are lost. Even if you never develop the interest you are still leaving the door open to future family members taking up the task. I say this very seriously because I didn't ask my grandparents about their lives as much as I should have and I can't go back and do that now. Beyond that it is entirely up to you what you want to get out of your research and how much work you want to do in addition to the DNA test. In order to decide what level you want to take this to, it would help to understand how DNA works, so here is a quick primer on DNA...

DNA 101

Below I have focused on the very basic terms and processes, DNA is a very complex thing and certainly there are more advanced types of analysis that can be done to make use of DNA results. For now, however, we will stick with the basics which includes terms you will see used in your results report.

AncestryDNA is an autosomal test, which means it's a pretty basic test of all your DNA, both mother and father. There are other tests out there that focus on male or female lines using DNA but autosomal is the most popular test because it is universal. The first thing you have probably noticed are the ethnicity estimates from the report. These results are based on population studies in which people who self-report that their family has lived in that place for some number of generations (or similar criteria) take DNA tests. Analysis is used to identify similarities among these people's DNA to find indicators that might be unique to the population in that geographic area. I cannot stress enough that these are only *estimates*. People have been moving around the earth long before a few recent generations, especially within areas like Europe. You can probably be pretty sure that the estimates given in your results are correct to the continent but beyond that they aren't likely to be very accurate from country to country. For example: Irish, Scottish and British DNA are not likely to be very distinguishable because they are so close to each other that people have moved and intermarried there for thousands of years, not to

mention border changes. This goes for many other places in the world as well. So don't get too hung up on the specific ethnicity estimates.

You inherit 50% of your DNA from each of your parents. Your parents also inherited 50% of their DNA from each of their parents. But with each generation your DNA gets recombined, so you don't get exactly 25% of your DNA from each of your grandparents, you might get an uneven split from them. And when you consider that this has been going on for thousands of years, you will have bits of DNA that come from a lot of people in varying amounts. This is why when you look at your matches you see an estimate of your relationship, since the size of the chunk of DNA you share isn't a perfect indicator of how far back you are related.

Chunks of DNA are called *segments*. You might share one or more segments of DNA with a person you are related to. Segment lengths are measured in units called *centimorgans* (cMs). The larger the "cM" number, the more DNA you share with someone and the closer you are likely to be related (but remember the number isn't a perfect test of relationship). AncestryDNA will tell you the total number of segments you share with someone and the total cMs of all the segments you share with that person. Generally, a single segment has to be a certain size before Ancestry will determine that it shows a relationship and include it in your results. The threshold they use is 6 cMs, some other companies may use 7 cMs instead. This is because sharing very small pieces of DNA under 6 cMs may just be a coincidence and not an indicator that you are related to that person. Many DNA companies will also tell you a third statistic which is size of the largest shared segment, but Ancestry does not. Later on in the process you can learn how to find this out because it can help indicate how closely you are related to someone.

It is also important to note that a DNA test alone cannot tell you which side of the family the match is on because there is no marker that says which segments came from your mom or dad, it all gets recombined into one piece of DNA. This is where family trees come in to play. DNA tells you that you have a *common ancestor* with someone. That means at some point back in the family tree you both can call the same person a great-great-whatever-grandparent but you descended from different children of that couple. The only way to find out through which ancestor you are related is to both have a family tree and to compare the trees until they overlap. Ancestry helps with this a lot because it can use algorithms to compare your tree with the trees of all your matches and make suggestions about which surnames are in both your trees or when your ancestors lived in the same area and other clues that might help you figure out where you have a common ancestor with that person. At the bottom I have added a cousin chart and an explanation because when Ancestry starts throwing around terms like second, third, fourth cousin, etc. it can get confusing!

Finding your cousins...

Unfortunately comparing trees only works if you both 1) actually have a tree, 2) have a lot of ancestors included on your tree, and 3) everything on the tree is correct. Many people that take DNA tests aren't interested or don't know how to research their family tree so it becomes difficult to determine where your ancestors overlap. Or they make a tree but mark it as "private" which is about the same as having no tree at all, unless you send them a message and they are willing to let you see it. Even if you want to make a tree of your own it is easier said than done! Family trees are based on a paper trail which can be extremely difficult to follow: birth certificates, marriage licenses, death certificates, censuses etc. It is very common to have a DNA match but you can't figure out where your trees overlap because one or

both of you has run into dead ends on that branch of the tree and can't take the paper trail back far enough to find the common ancestor. I have been doing genealogy for several years and there are branches of my tree that even I can't take back farther than 1850, which isn't very many generations in the DNA world!

Following the paper trail...

You might not be interested in full-blown genealogy research long-term, and that's totally fine, but I encourage you to start building a basic family tree and see where it goes. The more accurate information you can get on the tree, the more likely you are to connect with cousins and the more advanced techniques you can use to figure out how your matches relate to you. The first step is to take any 5 generation pedigree chart (Google it, there are many free ones out there), print it out and fill out as much as you can. Leave blanks if you don't know. Talk to your parents and relatives if they can help fill in blanks. In my opinion, the main goal here is to get to people born before 1940 because the latest census that is available is 1940 and I find that a great place to start connecting people to their parents. Many records 1940-2017 are protected by state privacy laws and aren't available online so you generally have to get over that hump using family knowledge. If you know more than the 4-5 generations most charts allow for, then print more copies and keep going, you can probably pick up on the numbering system it uses.

Also if you have access to copies of any birth/marriage/death certificates or other documents that you can photocopy or look at to verify the dates and places that would be even better to avoid mistakes and because, like I said, most records that recent aren't accessible in databases and a mistake here will mean you might be researching someone else's family instead of your own! Once you have completed the chart begin typing the things you know for sure into Ancestry and that will become the basis of your family tree. You can use any genealogy software or website, but make sure you also put it on Ancestry so your matches can see it! You probably have a free trial of Ancestry that comes with this DNA test so the faster you accomplish this step the more use you can get out of the free trial. Even without the free trial there are plenty of free databases online that should get most of what you need to get started. If you have any information from your initial chat that you are guessing or aren't certain about, that is a perfect thing to start researching.

If you teach a man to fish...

This is not meant to be a "how to" guide for genealogy research but the basic premise of genealogical research is that you need documents that prove every fact you claim on your tree. This includes connecting people to events and connecting events to specific dates and places. Not every place and every time used the same record-keeping systems so do some research about what types of records were kept for various life events including: birth, marriage, death, burial, residence and immigration. From this point I recommend seeking help from a local genealogy society, a free online course, a book, or a Facebook group to really begin researching. I would also encourage you to take the time required to learn how to do sound genealogical research, analyze documents and draw conclusions. Like any discipline ending in "-ology" there are rules for conducting good research that you should be familiar with. What constitutes "proof"? What are some of the conventions for writing names, dates and places? Reading a couple of books, watching some webinars or taking a course will make a huge difference in the quality of your work and therefore the quality of your results!

Once you have a solid start on your tree going back several generations in every direction you can go, come back to your DNA matches and see if anything new reveals itself. Start to look for overlaps between other trees and your tree and don't be afraid to send messages and see if you and your match can come up with anything useful. Then you can start to learn more about analyzing DNA matches. For that there are many dedicated Facebook groups, books, software programs, websites, blogs, webinars and courses that can help you go in-depth on your matches!

I know this is probably a lot to take in, but think about it, re-read it, start with the chart, talk to your relatives, and if you're still onboard after doing all that then you're ready for genealogy and you can make the most of all those AncestryDNA matches! Good luck! ☺

Printable Ancestor Chart

Link to printable a family tree chart from Family Tree Magazine:

<https://www.familytreemagazine.com/upload/images/pdf/ancestor.pdf>

Cousin Charts

You are trying to find common ancestors. So...

- When your common ancestor is your parents...that makes your match a sibling
- When your common ancestor is a grandparent...that makes your match a 1st cousin
- When your common ancestor is a great-grandparent...that makes your match a 2nd cousin
- When your common ancestor is a great-great-grandparent...that makes your match a 3rd cousin
- And so on...

A cousin "removed" is when you and your cousin are not from the same generation. For example, if the common ancestor is your great-grandfather but the other person's grandfather, that would make you first cousins once removed because there is a one generation difference between you. In the chart on the next page this would mean you aren't counting the same number of generations for you and your cousin

You aren't likely to run into anyone in your DNA matches that is more than twice removed because they would generally have to be a lot older or a lot younger than you to be that many generations different, but it is still possible when multiple generations have siblings with wide age ranges or born to especially young or old mothers.

Here is a link to a great chart illustrating relationships using a family tree style:

<http://homepages.rootsweb.ancestry.com/~picard/CousinChart.html>

To use the type of chart below to determine how you and a cousin are related you will need to start at zero and count across the number of generations between you and the common ancestor then count down the number of generations between the relative (cousin) and the common ancestor. Where the two intersect will be your relationship! You can find larger versions of this style chart by searching "cousin chart" on Google.

		Count the generations from YOU to the common ancestor					
		0	1	2	3	4	5
Count the generations from the RELATIVE to the common ancestor	0	Self	Child	Grandchild	Great Grandchild	2 nd Great Grandchild	3 rd Great Grandchild
	1	Child	Sibling	Niece/Nephew	Grand-Niece/Nephew	Great Grand-Niece/Nephew	2 nd Great Grand-Niece/Nephew
	2	Grandchild	Niece/Nephew	First Cousin	First Cousin 1x Removed	First Cousin 2x Removed	First Cousin 3x Removed
	3	Great Grandchild	Grand-Niece/Nephew	First Cousin Once Removed	Second Cousin	Second Cousin 1x Removed	Second Cousin 2x Removed
	4	2 nd Great Grandchild	Great Grand-Niece/Nephew	First Cousin 2x Removed	Second Cousin 1x Removed	Third Cousin	Third Cousin 1x Removed
	5	3 rd Great Grandchild	2 nd Great Grand-Niece/Nephew	First Cousin 3x Removed	Second Cousin 2x Removed	Third Cousin 1x Removed	Fourth Cousin
	6						