

## A 5 Company Comparison of DNA Test Results

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Autosomal DNA refers to the DNA we get from both of our parents, and therefore represents all of our ancestors on both sides of our family tree. Since 2007 when 23andMe first launched their autosomal DNA test, there have been nearly constant changes in the world of autosomal DNA testing (which likely means this syllabus will be outdated by the time you read it!). With five different companies offering five different kinds of products, there is a lot to review. Here we will evaluate each company on five major metrics:

1. Sample Collection
2. Ethnicity Estimates
3. Database Size
4. Genealogy Tools
5. Genetic Tools

Lastly, all companies will get an overall rating for how likely they are to be able to impact your genealogy research.

### Sample Collection

There are currently two methods of sample collection in the industry: saliva collection or cheek swab. 23andMe and AncestryDNA use saliva collection, while MyHeritage DNA, Family Tree DNA, and Living DNA all use a cheek swab.

Most companies are shipping their DNA test kits to most places in the world, with AncestryDNA having the most restricted access. [See more information about international shipping options for each testing company.](#)

### Ethnicity Estimates

Perhaps the biggest reason that people purchase a DNA test, the ethnicity estimates are meant to give you insight into your ancestral locations. These results are heavily dependent on the reference populations used by the testing companies. Each company is using different reference populations, so understanding what those populations are can greatly impact your understanding of the results.

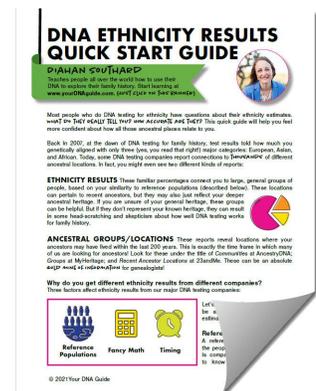
[Get a free downloadable guide to ethnicity results](#) that includes links to the reference population for each testing company, as well as an in-depth explanation of why your ethnicity results vary across time and testing companies.

### Database Size

If you want to do family history research, the key will always be finding that one DNA match (or 10 of them!) who connect you to a previously unknown ancestor. Therefore, statistically speaking, you will want to test with the company that is most likely to have that particular DNA match. This may mean testing with the company with the most people in the database (that is certainly a good place to start). Currently, that's [AncestryDNA](#). To see the latest DNA database numbers, check out Leah Larkin's blog at [www.thednageek.com](http://www.thednageek.com).

### Genealogy Tools

Only two of our companies are doing an excellent job of providing us ways to integrate our genetics and our genealogy: [AncestryDNA](#) and [MyHeritage](#). This makes sense, as both companies have extensive record collections and massive online connected family trees, which provide an almost endless source of information with which to integrate our DNA results.



At Ancestry, their best tool is called [ThruLines](#), and at MyHeritage it is called [The Theory of Family Relativity](#). Basically these tools use the resources at each company to offer you an idea of how you and your matches might be related to each other. These tools are both excellent resources for your genetic genealogy efforts and should be reviewed carefully. But remember, these are just hints, and need to be double-checked!

## Genetic Tools

When working with our DNA matches, all of our companies have the most important tool: the [Shared Matches Tool](#) (called In Common With at FTDNA, and Relatives in Common at 23andMe). This tool allows you to gather together individuals who are all sharing DNA with each other. Theoretically, these individuals will share a common ancestor with each other, allowing you to make genealogical discoveries.

There are other genetic tools that our companies are offering to help further the work of genetic genealogy. Here are some of those tools and how they might help.

### Chromosome Browser

A [Chromosome Browser](#) is a tool that allows you to see the actual locations that you share with your match. For the most part, it doesn't matter where you are sharing with someone, only that you are sharing. However, some genetic genealogists like to track the actual locations shared. If you are one of those that likes these sciencey things, go for it! But just be careful that you aren't reading too much into the shared segments, as some segments are just very common, and don't necessarily indicate a shared recent common ancestor.

### Relationship Estimates

While each company gives you a relationship and relationship range to accompany your match, AncestryDNA has gone one step further and is providing you with a list of relationships and their probabilities based on your DNA match strength. This tool can be a valuable resource to help you see how you might be connected with another DNA match.

A very similar tool is available for use with any DNA testing company data, and is courtesy of Blaine Bettinger. It is called the Shared Centimorgan Project. Find out more about this tool on my website at [www.yourDNAguide.com/scp](http://www.yourDNAguide.com/scp).

### Matches of Matches

A very important aspect of understanding your connection to your matches is seeing their connections to each other. We can see this most easily at MyHeritage DNA as part of the Shared Matches tool. For example, I might see that Jim is my second cousin, and we both share DNA with Pam. Pam is also listed as my second cousin, but is listed as Jim's sibling. This really helps me better understand how Pam and Jim are connected - especially if only one of them has a tree posted!

23andMe also provides this information as part of their Relatives in Common tool, and FTDNA provides a very limited view of the matches of your matches in its DNA Matrix tool.

## Summary

All of the five companies discussed here have the potential to impact your family history. They are all reputable, and all offering tools that can help you in your search to better find and document your family. Ultimately, you would want to test at all five and take advantage of their different tools and databases. Remember, it only takes one match to break your family history research wide open, and you just don't know where that one match may have tested.

Read and bookmark our [summary review of DNA testing across all 5 companies!](#)

## Next Steps with Your DNA Guide

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