5 Tips To Make Sense of Your DNA Testing

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At some point in the recent past you were convinced that DNA testing could help with your genealogy, so you went through with the testing. But now you are faced with confusing results and a long list of matches. While there are a myriad of different choices on how to turn these DNA results into family history success stories, here are 5 tips to help you make some progress.

#1 Test the right person, with the right test, at the right company

Put very simply, you should test everyone in your family who is on any generation above you. If you are the oldest generation, then test yourself and all of your siblings. There is no need to test any individual who parents are both available for testing, unless you are just curious.

The right test depends on your goal. If you are anxious to find out about a direct paternal line, then you need to find a living descendant male who has that surname who can test to represent your line. Easy choice. You need a YDNA test. You can only buy that test at Family Tree DNA.

In general, you will want an autosomal DNA test for each of the individuals you identified in paragraph one above, but where to test can get more complicated.

With three testing companies it is, of course, best to be tested at all three. But since that can be cost-prohibitive, you should evaluate each company to see which best suits your needs. While there are many considerations when choosing a company a few you may check out should be cost, sample collection method, usability of the website reports, and database size. For a full comparison see http://isogg.org/wiki/Autosomal_DNA_testing_comparison_chart.

> If you really want to know, I usually recommend starting your autosomal DNA testing experience at AncestryDNA, just because they have the largest database. Then you can test key individuals at other companies to see what other matches you can find.

#2 Understand Your Ethnicity Results

First of all, let's get this out of the way up front: Your ethnicity are not the most important part of your genetic genealogy experience. However, they are a part of it, so they are important to understand.

Your ethnicity results report your likely ancestral locations **when compared to those in a reference database**. You can see then, how important it is to know the composition of each company's reference database. A company who is able to make a distinction between

an Irish Person and a French person will be able to give you more specific results than a company who is only reporting individuals as part of larger geographic populations, like "Western European." Likewise, if you are testing to determine if you have a specific ethnic origin in your genetic make-up, like African or Native American, you will want to be sure the testing company provides those distinctions within their test.

Remember, if you have an ethnicity show up on your chart, it does NOT mean you have an ancestor from that location. Likewise, if a specific location does not show up on your chart, it does NOT mean that you don't have an ancestor from that location.

The best take home message here is that ethnicity results are approximations, they are still being refined, and they are talking about your ancestral lines at least 500 years ago.

#3 Using Results: The Ancestor Method

The Ancestor Method starts with you approaching your match page with a particular genealogical question in mind. Let's say you want to learn more about the parents of your great great grandpa Charlie. The first thing you need to do is recognize your genetic relationship to Charlie, and the genetic relationship your would-be cousins should have if they were descendants of Charlie, or descendants of Charlie's parents, who you are hoping to find. Take a look at this chart. If we are looking for Charlie's parents, it would be helpful to identify some of Charlie's descendants who have already been tested. So that
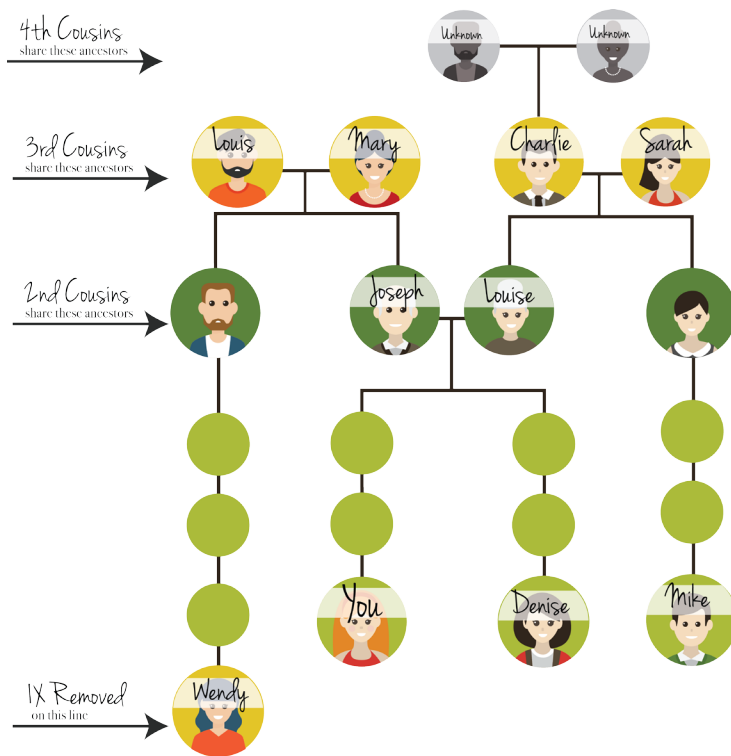
would be Denise and Mike. Any DNA you share with Denise or Mike should be what we call IBD, or Identical By Descent, meaning that you all inherited it from Charlie or Sarah, your common ancestors.

Likewise, anyone who is sharing DNA with you and Denise or you and Mike or Mike and Denise may also have some genealogical connection to Charlie and Sarah.

What we are hoping to find in the database are descendants of Charlie's siblings, people who would be your 4th cousins, that can help us identify whose Charlie's parents were.

Therefore, we need to search our match page for our Best Matches- those that might have some relationship to Charlie. To do that, we can make a list of the surnames and locations associated with Charlie and use the search feature of our testing company's website to find them. We can also use the Shared Matches Tool at our testing company to find others who have shared DNA with you and the other descendants of Charlie.
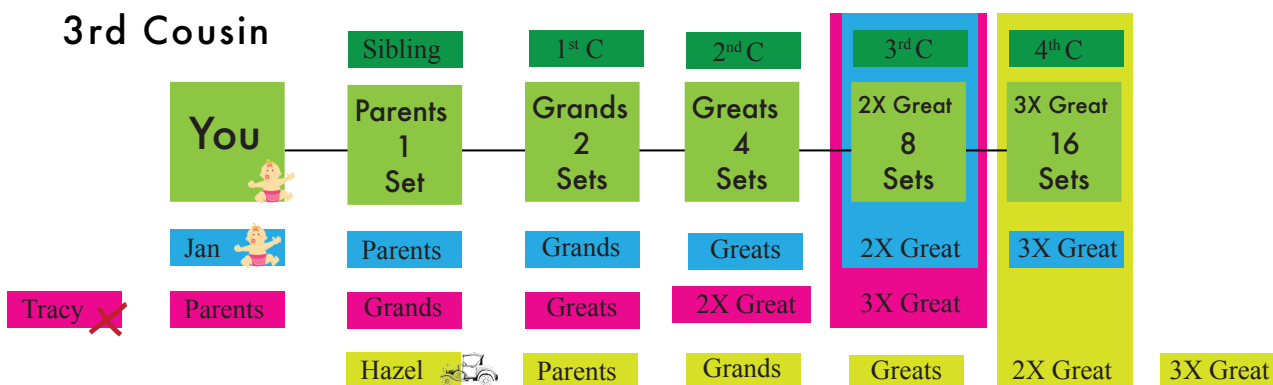
Using Results: The Cousin Method

An alternative to searching for a particular ancestor is to investigate a particular match on your match page. Choose this cousin from among your Best Matches - those who are 3rd Cousins or closer, or those 4th cousins who have a surname or location in common with you. If the cousin you chose does not have any pedigree information posted, the best you can do is send them an email. With email response rates fairly low, a well-crafted email might be the key to getting a response. Here are some tips.

Email Tips

1. Keep it short! Seriously. This is not the time to pontificate.
2. Identify the username of the person you are inquiring about. Many people mange multiple kits and won't know who you are referring to unless you tell them.
3. Explain in one sentence a summary of your genealogical goal or question that you think this match might be able to help with.
4. Ask a specific question, where possible. If you have seen something interesting in your match's pedigree, ask about that name or place. If they don't have a pedigree, but you see from the shared matches tool that they might be related to your Pettigrew line, then ask specifically about that line.
5. Give them an out. End your message with "Even if you don't have any information for me, please respond just so I know you are out there."

If you are able to see a pedigree chart, the first step is to identify the set of ancestors that fit in the right generation range to be the common ancestors between you and your match. The most important thing to remember here is that when your testing company predicts your relationship as 3rd cousins, what they really mean is that you and your match are separated by 8-10 degrees. For true third cousins, this means it is 4 degrees up to your 2X great grandparents and then 4 degrees back down to your match. But you need to keep an open mind about other possible relationships that fit in the 8-10 degree range. Trying to figure out the age of your match in relationship to yourself might be helpful. If you are a baby-boomer and your match is from Generation X, you are likely dealing with a once removed situation. In the chart below you see three of the many examples of how a genetic third cousin could be related genealogically.

3rd Cousin

	Sibling	1st C	2nd C	3rd C	4th C
You	Parents 1 Set	Grands 2 Sets	Greats 4 Sets	2X Great 8 Sets	3X Great 16 Sets
Jan	Parents	Grands	Greats	2X Great	3X Great
Tracy ✗	Parents	Grands	Greats	2X Great	3X Great
	Hazel	Parents	Grands	Greats	2X Great	3X Great

Organizing Your Matches

Likely one of the biggest problems you face is trying to keep track of all of your matches. One thing you may find helpful is to have a separate and dedicated email account for your DNA accounts. This will help you keep all of those emails separate.

I have also found it helpful to use Google's free Forms function to help capture pertinent information about each match. You can even export them into Google Sheets, which is just a spreadsheet, so you can see all of the information you have captured all at once.

If you are struggling to find a connection between yourself and a group of matches you might try using Google Earth to plot the ancestral locations of the appropriate ancestral lines to look for a common connection.

If you have a group of individuals who all seem to be related to a common family and you are trying to figure out your own connection to them, you might consider making a family chart like this one.

5th Cousin	4th Cousin	3rd Cousin	2nd Cousin	1st Cousin	Sibling	Tested	
6	5	4	3	2	1	0	1R
Ancestor *Birth date/place* — Spouse *Birth Date/Location*	Samuel Paulson *1791 Virginia* — Virginia McConnel *1791 Ireland*	Roland Paulson *Birth 1815 South Carolina* — Mary Wilson *1818 South Carolina*	Ancestor *Birth date/place* — Spouse *birth date/place*	Ancestor Birth date/place — Spouse *birth date/place*	Ancestor Birth date/place — Spouse *birth date/place*	**A**	
				Ancestor Birth date/place — Spouse *birth date/place*	Ancestor Birth date/place — Spouse *birth date/place*	private	**B**
					Ancestor Birth date/place — Spouse *birth date/place*	**C**	
	Josie Paulson *1817 South Carolina* — Richard Croup *1814 Virginia*	Ancestor *Birth date/place* — Spouse *birth date/place*	Ancestor Birth date/place — Spouse *birth date/place*	Ancestor Birth date/place — Spouse *birth date/place*	Ancestor Birth date/place — Spouse *birth date/place*	**D**	
		Eliza Paulson *1830 Virginia* — William Marks *1823 England*	Ancestor Birth date/place — Spouse *birth date/place*	Ancestor Birth date/place — Spouse *birth date/place*	Ancestor Birth date/place — Spouse *birth date/place*	**E**	

Using a chart like this, or one of your own, you can track how matches A-E are related to each other, and therefore get a better idea of how you are related to them. For example, if you were predicted to be 3rd cousin of Match E and the 4th-5th cousins with matches A-D, then you would want to look for the parents of Match E's Eliza Paulson as your possible shared ancestors. Knowing that there is DNA shared between all of the listed matches, we know that Eliza's parents are likely to be related to Paulson ancestors listed. In this case our DNA matches have not exactly provided the direct answer, but having their data organized has given us an additional line of inquiry.