

What to Do with Your DNA Results at 23andMe

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DNA SIG handout - - April 4, 2023

Note - - This handout will discuss only the ancestry aspects of DNA testing at 23andMe, not Ancestry + Health DNA results.

First, you will want to look at the information found in the “Help” section on the 23andMe website. Unfortunately, they do not make the “Help” section easy to find. Log into your 23andMe account and scroll all the way to the tiny print at the very, very bottom of the home page, and click on “Help.” The “Help” screen will read “Welcome to 23andMe Customer Support.” There are a number of categories of help listed; to learn how to use your 23andMe DNA results, click on “Reports.”

On the “Reports” page, click on “Ancestry Composition” to learn about various aspects of your ethnicity estimate, country matches, genetic groups, and more. Your country matches and genetic groups are shown as percentages, but when you click on one of the genetic groups, your assignment to that group is indicated by a confidence level from “highly likely” to “possible.” There are a dozen categories of detailed information to be found in the list of subjects covered on the subject of “Ancestry Composition.”

23andMe has divided the world into six main population groups, each with a number of subcategories. If you click on “See all tested populations,” you can view all the main categories. Sometimes, reviewing locations where your DNA does not appear can help you better understand where your ancestors were not living.

Use the “Ancestry Timeline” to review where 23andMe predicts your DNA was likely located at different eras in time. This view can help you understand why your “Ancestry Composition” report may not necessary coincide with what you have learned from your genealogy research. Be aware that DNA testers of European descent whose ancestors have been in the U. S. for a long period of time may see connections in western Europe that appear to be closer in time than they actually are.

You may also want to explore the subjects covered under the “Haplogroups” link, which discuss getting started in understanding haplogroups, and include information about both paternal and maternal haplogroup assignment. For fun, you can click on links to learn more about your Neanderthal DNA, and check out your DNA traits reports.

From the main “Customer Support” page, click on “Tools” to get to the nitty-gritty of using your DNA matches at 23andMe. One of the most useful ways to use 23andMe DNA results is by participating in the “DNA Relatives” feature; i.e., your DNA match list. Make sure you have opted to participate in “DNA Relatives” on your profile. This allows you to identify and communicate with matches on your list. Your match list at 23andMe is limited to the 1,500 closest matches, unless you choose to subscribe at a premium level, which gives you additional, but not unlimited, matches.

23andMe’s version of shared matches is called “Relatives in Common,” which is the key to determining how you match the DNA cousins on your match list. The “Relatives in Common” application looks for amounts of shared DNA as low as 5 cM, which could potentially result in some false-positive matches, although if your match list is limited to 1,500 people, your matches may all be well above the 5 cM level.

The “Relatives in Common” tool is very useful in determining your genetic networks at 23andMe. The tool shows all the people in your match list who are also in the match list of your selected match. It also reveals the relationship of the shared matches to each other, which can help you ultimately determine how you are related to them.

By clicking on one of your DNA matches, you can see how 23andMe has predicted your relationship in an actual mini descendancy chart, estimating at which generation you will find your most recent common ancestor (MRCA). The profile view will also show if you and your match have matching surnames and/or overlapping geographical roots - - that is, assuming that your match has chosen to include that information in their own profile. Be sure to list relevant surnames and places in your profile to help determine where you might overlap with your DNA matches. I have found that most users, however, seem to list only a few surnames, and very few specific geographic places. Many 23andMe users do not list any names or places at all.

In the “Tools” category, you also want to check out the “Share and Compare” section. Information in this section explains how to use chromosome matching and mapping as part of your analysis of your DNA cousin matches. Be sure especially to read the page on “Viewing Shared & Matching Segments of DNA.” Included on this page are examples of what the chromosome map will look like for various levels of relationship, under “Example Comparisons.” Using the “Advanced Comparison” tool allows you to compare chromosome matching with more than one other 23andMe user at once, which can be especially useful in determining if several of your matches overlap on the same

chromosome and therefore might be related to you by way of the same ancestor. Be aware that you will only be able to see overlapping chromosome segments with DNA matches on your list who have also opted into sharing.

As you become more experienced in navigating your DNA matches at 23andMe, you can use the “Ancestry Painting” tool, which shows all 23 pairs of your chromosomes “painted” with the population group that correlates to that segment of your DNA. You can then use the “Ancestry Painting” tool in combination with the “Advanced DNA Comparison” tool that shows you the chromosome location(s) you share with one or more of your DNA matches. If you and your match(es) overlap on a specific chromosome, and that chromosome location is associated with a particular ethnic group, you can look for the MRCA of you and your match(es) among the ancestors in your tree who are tied to that ethnic group. In other words, this technique can help to narrow down the search for the MRCA.

A unique feature of 23andMe is the DNA tree it creates, using only the DNA data to construct the tree - - no pedigree charts involved. Find information about the DNA tree in the Customer Support section by clicking on “Tools” and then “Family Tree.” The DNA tree uses only user age and shared DNA to predict which of the possible relationships you and your match may share as the most likely. You can edit the tree to add links for your match to a known common ancestor, and you can identify those ancestors and their spouses/partners by name in the DNA tree. You can also correct errors in the tree, by adding a missing generation of connection, or moving the link of connection to the correct ancestral line. It takes a little practice to become facile in editing the tree, but 23andMe has detailed instructions on how to edit. See their guide on “How to Build and Edit Your 23andMe Family Tree” in the “Family Tree” section.

23andMe sometimes recalculates its predictions in the DNA tree. Some recent changes resulted in more specific predictions of how your match people on the match list, and include taking into account “removed” cousin relationships, and allowing for half-cousin relationships. Be sure to read the “commonly asked questions” section in the “Family Tree” section.

Unfortunately, 23andMe does not link family trees directly to DNA results. Users at 23andMe have the option to include a URL link to their family tree in their profiles, but in my experience, very few of my DNA matches at 23andMe have included tree links. 23andMe also does not have a simple-to-use grouping protocol, such as the colored dot

system at AncestryDNA. You can, however, add a note at the bottom of your DNA match's profile page, and you can indicate the ancestral line of connection in the note. Be sure to "save" your notes! Of course, you can also link your DNA matches to the DNA tree, once you have confirmed how you match each other. This provides a very visual way to see who among your DNA matches are grouped together; that is, who among your matches descend from the same common ancestor.

Once you have read the information in the "Help" section at 23andMe, you can navigate easily to your DNA results by using the "Family and Friends" tab in the top toolbar after logging in to the 23andMe home page. From the "Family and Friends Overview" page, you can navigate via large buttons to view your "DNA Relatives List," the DNA "Family Tree," the "Share and Compare" and "DNA Comparison" tools, and "Your Connections."

You can navigate directly to your "DNA Relatives" list from the "Family and Friends" tab. This takes you to your DNA match list. By default, your matches are listed in descending order, beginning with your closest matches. You can also sort your matches by percent related, segments shared, or newest matches. Along the side of the "DNA Relatives" list are various filters you can use. For example, you can filter your matches by ancestor birthplaces or family surnames.

Use the "Family and Friends" tab to go directly to your DNA tree, or to the "Advanced DNA Comparison" tool, which allows you to see shared chromosome segments with several of your DNA matches simultaneously.

23andMe is not the easiest site to navigate, but the 23andMe "Help" menu contains a lot of very useful information, and is worth the trouble to seek it out and the time to explore it. Pull up 23andMe on two tabs on your computer, then read a section of the Help menu on one tab and apply what you learned to your own results on the other tab to learn how to navigate your 23andMe DNA results.

Sources 23andMe Help menu
<https://customercare.23andme.com/hc/en-us>

Your DNA Guide - - 23andMe Quick Guide, 3rd Edition
by Diahan Southard, published 2022