

## **MyHeritage DNA Tools**

MyHeritage got into the DNA business a few years ago and has built up quite a following since. There are many testers from outside the US in the MyHeritage DNA database and if you can participate you should.

This is a cheek swab DNA kit. You can purchase a MyHeritage DNA kit or upload results from another DNA service. You do need to create a MyHeritage account to review the results.

There are several sections to the DNA results from MyHeritage:

- Overview
- Ethnicity
- DNA Matches
- DNA Tools

### Overview

This area contains an overview of ethnicity, matches, locations of your matches, and ethnicities of your matches.

The overview of ethnicity contains the general locations for the highest percentages of your DNA. You can click on this for further details on your ethnicity.

Matches sort into close family, extended family, and distant relatives. The close family is immediate family to 1<sup>st</sup> cousins. The extended family are 1<sup>st</sup> cousins once removed to 2<sup>nd</sup> cousins once removed. The distant relatives are 3<sup>rd</sup> cousins or more distant cousins. The distant relatives will have the smallest amount of cM in common with you.

The locations allow you to see what countries your matches are from. DNA testing is huge in the USA and a high number of the matches will probably be from the USA.

The ethnicity of your matches shows the number of matches you have by ethnicity.

### Ethnicity

These are estimates based on reference populations. The reference population is DNA from families that have been in a specific area for some time. Your DNA is compared to them to estimate how similar your DNA is to specific genetic characteristics for people in that region.

From the MyHeritage website: “Remember that your Ethnicity Estimates — which are the result of a highly accurate statistical algorithm — are still estimates. Some global populations exhibit similar DNA due to proximity and the mingling of populations.”

You can click on each region to find out more about the history and people of that region.

## Genetic Groups

This shows up under Ethnicity. MyHeritage has used DNA match networks and family trees to put together similar groups of people. Genetic groups show up both under individual ethnicities and as separate groups underneath all the ethnicities.

You can change the confidence level in the genetic group to either high, medium, or low. If high is selected, then you definitely belong to the ancestors in that genetic group, medium and low are a bit looser.

Use the timeline to see how the genetic group has migrated over time.

In the column on the left, scroll through Top Locations, Common Surnames, Common Given Names, and Common Ethnicities for more information about the genetic group. These can also be used as hints/starting points in your family research when looking at where/when a genetic group you belong to might have been. For example, if you know your ancestors came from Ireland in 1875 and you belong to a genetic group from Ireland, then set the timeline to 1850-1900 and see what the Top Locations listed are to get potential clues to where your family came from.

## Matches

This starts with an overall list of your DNA matches.

You can determine which matches you see in a couple of ways:

- Filter: Tree Details, Relationships, Locations, Ethnicities
- Sort: shared DNA, shared segments, largest segments, full name, most recent

Use these to make it easier to track/view your matches.

You can next review a match. This gives you a lot of information about how you and that match compare to each other. This does depend on how much information that match has on MyHeritage.

When looking at the possible relationship, make sure to click on the ? for help with a chart of who the most recent common ancestor might be. This can be useful when providing surnames to your matches to try to determine how you are related.

CF – Close Family; EF – Extended Family; DR – Distant Relatives; AM – All Matches

	<b>With a tree</b>	<b>Without a tree</b>
<b>Shared Matches</b>	AM	AM
<b>Shared Ethnicity</b>	AM	AM
<b>Shared Segments</b>	AM	AM
<b>Ancestral Surnames</b>	CF*, EF*, some DR*	
<b>Ancestral Places</b>	CF*, EF*, some DR*	
<b>Smart Matches</b>	CF*, EF*, some DR*	
<b>Theory of Relativity</b>	CF*, EF*, some DR*	

\* Depends on quality and size of family tree

If a match has a large, well sourced, family tree, then it's more likely that you'll get additional information per match. This information can be useful in determining how you are related to a match.

In the chromosome browser section of your matches, you can use the advanced options to download information on your shared segments. This information can be mapped with others using the MyHeritage Chromosome browser or tools like DNA Painter.

### DNA Tools

This section includes 3 tools for evaluating your DNA: the chromosome browser, AutoClusters, and Ethnicity Maps.

#### **Chromosome Browser**

In the Chromosome Browser you can compare what DNA you have in common with your matches and what DNA your matches have in common with each other.

If your matches have DNA in common with each other and with you, they show up as triangulated segments.

You can compare up to 7 of your matches. For triangulated segments you can change the cM size to eliminate or include smaller segments as needed.

#### **AutoClusters**

This tool clusters your matches into groups likely descended from the same ancestor. You select a kit that you want to generate a report for and then it will email the information to you.

The report you receive contains 3 files in it.

- A web page that will show you a graphic of the clusters and below the graphic list each of the clusters in a table
- A Readme file that contains information about the report. It tells you the minimum and maximum cM used as well as any matches that were left out of the report and why. Please read this file!
- A spreadsheet with all of your clusters listed.

The nice feature is it does have the matches for each cluster listed in a table. If you know how you are related to one match in that table, then you have a starting point for how you are related to the other matches in that table.

#### **Ethnicity Maps**

Based on the data from MyHeritage DNA users, this tool shows you “the most common ethnicities in each country and the top countries for each ethnicity” according to MyHeritage. This is interesting to look at based on the DNA samples at MyHeritage which ethnicities have ended up where in the world.

### Manage Multiple Kits

You can upload raw results from other vendors to MyHeritage. When you upload kits, **make sure you assign the results to the appropriate person.**

From this page, you can see the status of the kit, delete kits, assign a kit to another person, and view results for a kit.

### Surveys

You can fill out these surveys to help MyHeritage scientists further research the connections between genetics, personal characteristics, and culture.

### Upload DNA data

If you've taken a test at another DNA company, you can download your raw data and upload it to MyHeritage. MyHeritage currently supports uploads from FamilyTreeDNA, 23andMe, Ancestry, and Living DNA. There are detailed instructions on the [website](#) for how to download your data from the other sites. You can start a DNA upload here: <https://www.myheritage.com/dna/upload/>