

A Step-by-Step Guide to MyHeritage DNA

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<http://www.myheritageDNA.com>

- I. Brief background on the science of DNA testing
Whether you have already taken a DNA test or this is the first time you're hearing about it, in this session we will start from the very beginning. We'll go over the basic terms of DNA testing and learn how DNA is passed down through generations, how and why individuals have shared DNA segments, and how we're able to estimate one's ethnic origins.
- II. Ethnicity Estimate
Ethnic groups historically come from the same geographic regions and draw from a local gene pool. We analyze your DNA to determine which portions are estimated to originate from each of our 42 supported ethnicities. MyHeritage was able to build these ethnicity models thanks to our Founder Populations Project, in which we identified unique founder populations, which are groups who have lived in the same place for many generations. We sent DNA kits to people all over the globe, who were selected on the basis of their backgrounds as genetically representative of their geographic region.
- III. DNA Matches
DNA Matching technology compares your DNA data with the DNA data of others who have taken a DNA test with MyHeritage or who have uploaded their DNA data, and identifies shared genetic sequences that indicate a possible family relationship. The higher the percentage of DNA that you have in common with another person, the closer your likely relationship.
- IV. Advanced DNA tools to work with your DNA Matches
 - A. Smart Matches™
A powerful genealogy tool, Smart Matching™ works by comparing names, facts, and connections intelligently to the millions of family trees contributed by other users, to find out if your family tree intersects with any other trees and indicates matches. If Smart Matches™ are identified for you and your DNA Matches, this will be indicated on the DNA Match card. You can then review and save new information to your tree.
 - B. Shared ancestral surnames
Shared ancestral surnames are surnames that appear both in your family tree and in the family tree of your DNA Match, going back up to 10 generations. An ancestral surname that you share with your DNA Match could point to the identity of the shared ancestor from whom both of you inherited the same DNA segments.

- C. Shared ancestral places

Shared ancestral places are countries or U.S. states that appear in your family tree as well as in the family trees of your DNA Matches, where life events of your ancestors took place. This feature identifies such places going back up to 10 generations. A shared ancestral place with a DNA Match could point to the identity of the shared ancestor from whom you both inherited the same DNA segments.
- D. Shared DNA Matches

Shared DNA Matches are people that are genetically related to both you and your DNA Match. Shared DNA Matches can increase the confidence in your DNA Match and help you learn through which side of the family your DNA Match is related to you.
- E. Pedigree Charts

The pedigree charts show the direct ancestors of your DNA Match alongside your own direct ancestors. It is a helpful tool when looking for common ancestors and for detecting familiar names that can give you an idea about how you are related.
- F. Shared ethnicities

Shared ethnicities are regions where you and your DNA Match may have common ancestral origins. These regions may give you some clues about shared ancestors.
- G. Shared segments

Shared DNA segments are sections of DNA that you and your DNA Match likely inherited from a common ancestor. If you and multiple DNA Matches all share segments in the same genomic location, that common DNA was likely inherited from a common ancestor and can help you understand how all of you are related.
- H. Chromosome Browser

Shared DNA segments are sections of DNA that two DNA Matches may have inherited from a common ancestor. In the MyHeritage Chromosome Browser you can view shared DNA segments between you (or a person whose DNA kit you manage), and up to 7 DNA Matches, simultaneously.
- V. Case Study
 - A. Using a real-life example, the presenter will take you through a step-by-step journey to understand how you can leverage advanced MyHeritage DNA features to conduct your research and identify your exact relationship to a DNA Match.
 - B. Integrating genealogy tools to take your research even further
 1. Family trees
 2. Family records
 3. Historical records