

Using MyHeritage DNA to Determine Immigrant Origins

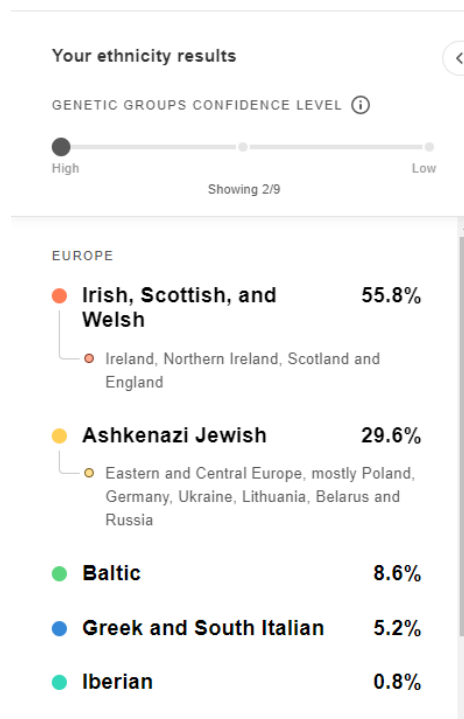
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Types of DNA

- **Autosomal**
 - Tests your DNA on both paternal and maternal ancestors within 5-6 generations (to 5th great grandparents)
- **Y-DNA**
 - Passed down from father to son
 - Can be used to go beyond autosomal DNA on your direct paternal line
- **Mitochondrial (MtDNA)**
 - Passed down from mother to child
 - Note: Males do NOT pass down the mtDNA
 - Can be used to go beyond autosomal DNA on your direct maternal line.

Ethnicity Estimates

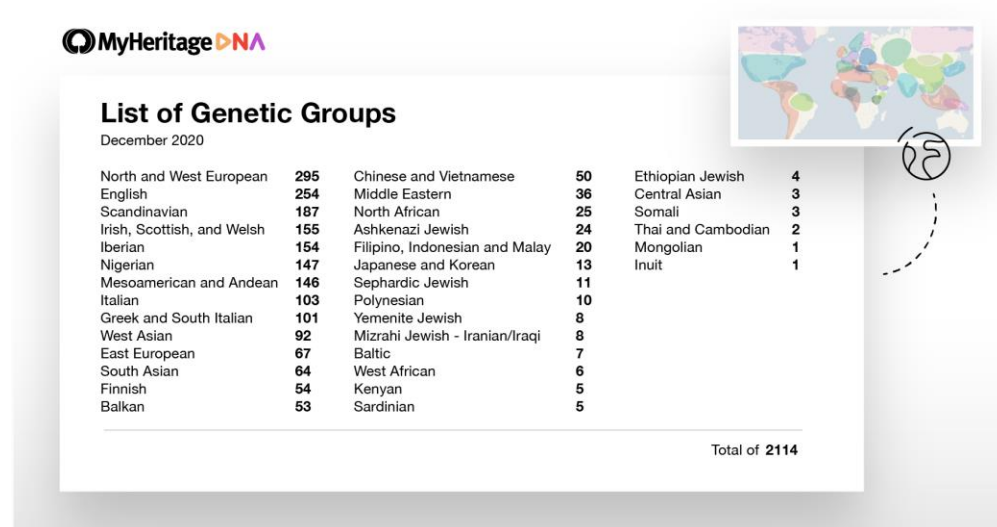
- Reference Panels used to determine your ethnicity
 - DNA samples from populations in a specific area
 - Each company has different sets of samples
- Algorithms used for assigning regions
 - May be placed in a broader region
 - Labels may be confusing and not always accurate
- Timeframes
 - Usually about 500-1000 years ago
- Overall, can be misleading or inaccurate
- May change over time.



Example of MyHeritage Ethnicity Estimates

Genetic Groups

- Genetic similarities between your DNA and those from a group's founding population
- Represented from 2,100+ regions
- Assigned with confidence levels to your ethnicity estimates



Source: <https://education.myheritage.com/article/genetic-groups-on-myheritage>

Haplogroups

If you take a Y or mitochondrial DNA test you will be assigned a haplogroup. It is an ancient ancestral grouping that shows the migration path your ancient ancestors traveled on when they left Africa.

Your Family Tree

- Evaluate your tree and identify your gaps or brick walls
- Your tree should include your earliest-known ancestors
- Questions:
 - Do you have all births, marriages, and deaths?
 - Locations where they occurred?
 - All locations where your family lived and moved to?
 - All children and siblings?

Working with your Autosomal DNA matches

- DNA companies predict relationships for your matches.
- Ask questions and be patient for answers
- Look for surnames and locations in common
- Work together with your match and share information
- Always confirm with genealogical records
- May need to build out your match's tree and find more information on locations where vital events (births, marriages, deaths) occurred
- Do you have all the locations where your family lived and moved to?
- All children and siblings?

MyHeritage Tools

- Shared Matches
 - A list of DNA matches you share and a specific DNA match.
 - When a match does not have a tree, you can use the shared matches to help determine which branch they likely belong to.
 - This tool helps makes sorting easier if you have parents, first cousins, or other close relatives match to help filter maternal and paternal matches.
 - Sort options include:
 - Total Shared DNA
 - Shared DNA with You (or person's DNA results you manage)
- Shared Ancestral Surnames
 - Surnames in common with other DNA matches that are present in your tree and a DNA match's tree
- Shared Ancestral Places
 - Refers to the towns, countries, or U.S. states that you share with DNA matches
 - Based on family trees of locations of births and deaths
 - Goes back to 10 generations within your family tree



- DNA Labels
 - Assign one or many colored dots to your DNA matches
 - Labels can be named with whatever naming convention you want to use (ex. Surname, side of family, etc.)
 - Filtering allows you to review DNA matches for specific labels
- Theory of Relativity
 - Shows how you're potentially related to DNA matches
 - There may be multiple ways you're related to someone
 - Similar tool to Ancestry's ThruLines
- Chromosome Browser
 - Helps you visualize the genetic inheritance by chromosomes
 - Shows the segments shared with DNA matches
- Auto Clusters
 - Groups together DNA matches who likely descend from a common ancestor in a visual chart.
- cM Explainer
 - Similar to the shared cM chart
 - Allows you to enter shared amount of cM's, your age and match's age to view relationship predictions

DNA Consultations

- Paid DNA consultations with a genealogist can be requested at <https://www.americanancestors.org/expert-help/consultations>

Genetic Genealogy Resources:

Websites

American Ancestors - <https://www.americanancestors.org/tools/american-ancestrees>

DNA Painter - <https://www.dnapainter.com>

GEDmatch - <https://www.gedmatch.com>

Genealogical DNA Analysis Tool - <https://www.getgmp.com>

International Society of Genetic Genealogists or ISOGG wiki: <http://www.isogg.org/wiki>

Shared cM Relationship Chart: <https://thegeneticgenealogist.com/2020/03/27/version-4-0-march-2020-update-to-the-shared-cm-project>

Shared cM Tool: <https://dnapainter.com/tools/sharedcmv4>

Blogs

Blaine Bettinger: The Genetic Genealogist <http://thegeneticgenealogist.com/>

Debbie Parker Wayne: Deb's Delvings <http://debsdelvings.blogspot.com/>



Roberta Estes: DNAeXplained - Genetic Genealogy <http://dna-explained.com/>

Judy Russell: The Legal Genealogist <http://www.legalgenealogist.com/category/dna/>

Kitty Cooper: Musings on genealogy and genetics <http://blog.kittycooper.com/>

Books and Articles

Angie Bush, *Genetic Genealogy Basics*. (Baltimore, Maryland: Genealogical Publishing Company, 2016).

Blaine Bettinger, *The Family Tree Guide to DNA Testing and Genetic Genealogy (2nd Edition)*. (Cincinnati, Family Tree Books, 2019).

Christopher Challender Child, *Using DNA in Genealogy*. (Boston, New England Historic Genealogical Society, 2014).

Colleen Fitzpatrick, *DNA and Genealogy*. (Fountain Valley, CA, Rice Book Press, 2005).

Debbie Parker Wayne, *Advanced Genetic Genealogy: Techniques and Case Studies*. (Cushing, Texas, Wayne Research, 2019)

Diahan Southard, *Your DNA Guide the Book: Step-by-Step Plans to Connect You with Your Family Using Your DNA* (United States, Your DNA Guide, 2020).