

Making Connections: Interpreting DNA Test Results

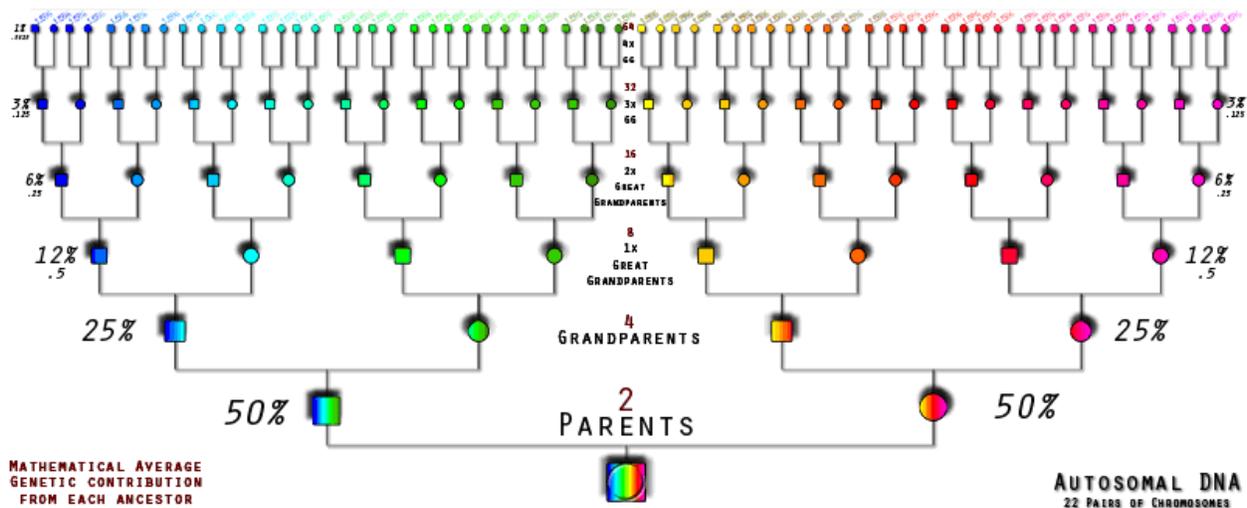
Results

Class 1: Navigating Your Results

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Types of DNA Tests Available:

- **Autosomal**
 - Male and female lines tested.
 - Anyone can take the test.
 - Testing Companies: Ancestry, FamilyTree DNA, MyHeritage, 23andMe, Living DNA



- **Y-DNA**
 - Direct male line is traced.
 - Only males can take test (Y-chromosome).
 - Recommend at least 37 markers (may require 67 markers or higher in groups if a large # of matches).
 - Testing Companies: FamilyTree DNA (recommended), Living DNA
- **Mitochondrial**
 - Direct female ancestral line is traced.
 - Anyone can take the test.
 - Testing Company: FamilyTree DNA, Living DNA

AncestryDNA

- No Membership
 - Ethnicity Estimate
 - DNA Communities
 - Match List
 - Contacting Matches
 - DNA Compare
 - Traits (limited to 3)
 - Shared Matches (limited to 3)

- Ancestry DNA Plus (or with Family History Membership)
 - Ethnicity Estimate
 - Ethnicity Estimate by Parents
 - DNA Communities
 - Communities by Parents
 - Match List
 - Match List by Parents
 - Contacting Matches
 - DNA Compare
 - Traits
 - Shared Matches
 - See matches in common with someone else. Goes out to 4th cousin level.
 - Chromosome Painter
 - ThruLines
 - Provides potential ancestors based on other DNA matches and their trees.
 - Carefully evaluate these lines with other genealogical documents.

- AncestryDNA TIPS:
 - The relationship with the highest frequency is not always the correct relationship for each DNA match.
 - Ancestry ProTools (\$) allows you to see the relationship between a DNA match and your shared matches. This is an additional subscription fee.
 - Create custom groups for the most recent common ancestral couple you share with that match.

ThruLines™ for Owen Dougherty
 ThruLines uses Ancestry® trees to suggest that you may be related to 32 DNA matches through Owen Dougherty.

Relationships List

Owen Dougherty
4th great-grandfather
1760-1861

Francis O Dougherty
3rd great-grandfather
1788-1892
3 DNA Matches

Honora Ann Dougherty
Half 3rd great-grandaunt
1800-1873
19 DNA Matches

Owen Dougherty
2nd great-grandfather
1829-1909

Catherine Dougherty
Great-grandaunt
1854-1902

Joseph Dougherty
Great-grandfather
1871-1949

Example of ThruLines. Shows number of DNA matches from a particular person's line.

FamilyTree DNA

- Family Finder – Autosomal Test
 - DNA Match List
 - Unlock Fee \$19 per kit
 - Chromosome Browser
 - Chromosome Painter
 - Ethnicity Estimates (MyOrigins)
 - ancientOrigins
- Y-DNA test – Male Only
- Mitochondrial Test – Male and Female
 - Tests the direct maternal line only
- Link DNA matches to people within your MyHeritage tree (previous tree builder in FamilyTree DNA has been “sunset”/discontinued)
 - Allows for maternal/paternal sorting.
 - Learn more about the FamilyTree DNA collaboration with MyHeritage via their blog post: <https://blog.myheritage.com/2024/07/new-collaboration-with-familyreedna/>
- Chromosome browser
- FamilyTree DNA Y-DNA and mtDNA Test Features
 - DNA Match List
 - Mutations
 - Assigned haplogroup
 - Haplogroup Origins

- Migration Map
- Matches Maps
- mtDNA and Y-DNA Journeys – video explanations of your results
- Join projects related to a family surname of tester, geographic region or an ethnicity group.
 - Mostly accept Y-DNA, mtDNA, and some autosomal DNA

The screenshot shows the FamilyTreeDNA website interface. At the top, there is a navigation bar with the FamilyTreeDNA logo and links for HOME, myDNA, myTREE, and myPROJECTS. On the right, there are links for ADD ONS & UPGRADES, a notification bell with a '3' badge, and a shopping cart icon.

The main content area is titled "Projects - Join" and includes a sub-header "MATCHING PROJECTS". Below this is a table with the following data:

Project	Members	Description
British Nobles Barons Gentry	2794	Male line descendants of British & Irish Earls Nobles Barons and Gentry may join. Those who descend through the female line may be transferred to the England GB groups EIJ (Norman) project. read more...
Chelsea ,Ma.	493	For you who are checking this out it is a Project for the towns of Chelsea,Revere [No. Chelsea,Prattsville,]and Winthrop Massachusetts. We are doing this in conjunction with the MACHELSEA-L@roots read more...
Clare Roots Society	1557	To learn more about the Clare Roots project, please go to the Background page. read more...
County Down N.I.	420	This site is for those of us whose antecedents, originated in County Down, Northern Ireland, close to where the Mountains of Mourne sweep down to the sea and includes the settlements of Ardglass, Ba read more...
County Derry	105	The purpose of the project is to autosomally test those of a County Derry pedigree and to establish the family connection between them. read more...
County Donegal	422	The Donegal DNA Project is for those who have done a DNA test (or are awaiting results of such) and whose four grandparents are from County Donegal or the City of Derry. The concentration is upon Do read more...
County Longford	300	Welcome to the County Longford Project. The purpose is to allow People with ties to Longford to test and be compared to others with ties to the same area. The fact they have ties to the same area wo read more...
Doherty	761	Welcome, researchers of all Doherty variant surnames. We invite you to become a participant in the Doherty Surname DNA Project. We hope you will find in this project a new link to your respective read more...
EARLY PENNSYLVANIA	1026	This project is to help researchers make connections with others whose ancestors immigrated through Pennsylvania before 1850. Several major groups used Pennsylvania as their gateway to a new life. read more...
England GB Groups EIJ	7115	Finding origins of surnames and DNA groups in Great Britain. In England, Scotland, Wales and indeed Ireland for many this origin will be Norman. However the reality is that we cannot look at Normans read more...
French_Heritage_DNA	9959	The main goal of the project is to find and confirm DNA signatures of ancestors, mainly in today's Quebec, Acadia and old Louisiana, preferably before 1800. and Metis/Natives of these area. This is read more...

Example of Projects List suggested for a Y-DNA test user

MyHeritage DNA

- DNA Match List
- Contacting Matches
- Exporting Matches
- Unlock fee of \$29 per kit
 - Ethnicity Estimate
 - Chromosome Browser
 - Shared Matches
 - Theory of Relativity (similar to ThruLines)
 - Auto Clusters

23andMe

- DNA Match List
- Shared Match List
- Chromosome Browser not currently available due to data breach in October 2023.
- Generates a family tree based on your DNA matches.
- 23andme+ Premium – medical reports (\$)
 - Monthly option also available for access to clinicians and biannual blood testing
- Note: There is an updated genotyping chip available if you want current reports (V5)

Living DNA

- Autosomal Test
 - Ethnicity Estimate
 - DNA Match List
 - Shared Matches List
 - Chromosome Browser (upgrade fee required)
- Fatherline - Y-DNA test (Male Only)
 - Haplogroup
 - Match List
- Motherline - Mitochondrial Test (Everyone)
 - Tests the direct maternal line only
 - Haplogroup
 - Match List

DNA Consultations

- DNA consultations can be arranged with a genealogist via telephone, online (Zoom), or in-person at American Ancestors in Boston
- Cost: \$150/hour for members; \$300/hour for non-members
- Work with you on a research plan for your brick wall
- Learn how to use one of the many third-party tools to manage and analyze DNA (including GEDMATCH)
- Request a 1-hour post-DNA results consultation at <https://www.americanancestors.org/expert-help/consultations#form>

Publications

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).

Tamar Weinberg, *The Adoptee's Guide to DNA Testing: How to Use Genetic Genealogy to Discover Your Long-Lost Family*. (Cincinnati, Family Tree Books, 2018).

Websites

- 23andMe <https://www.23andme.com/>
- Ancestry <https://www.ancestry.com/dna>
- FamilyTree DNA <https://www.familytreedna.com/>
- FamilyTree DNA Projects <https://www.familytreedna.com/group-project-search>
- GEDMatch <https://www.gedmatch.com/>
- Genetic Genealogy Standards <http://www.geneticgenealogystandards.com/>
- Genetic Genealogy Tips & Techniques Facebook Group
<https://www.facebook.com/groups/geneticgenealogytipsandtechniques>
- International Society of Genetic Genealogy Wiki <https://isogg.org/wiki>
- LivingDNA <https://livingdna.com/>
- MyHeritage <https://www.myheritage.com/>