



Genetic Genealogy

Another instrument in the toolkit of a well prepared genealogist



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Y-chromosome DNA is only passed from fathers to sons. Therefore, it can only give information about your father's paternal line. Only men can be tested. It is relatively stable from one generation to another so it is useful for surname studies. It is less stable than mitochondrial DNA so it is less likely to survive for a long time after death to aid in identification of bodies.

Mitochondrial DNA ("umbilical DNA") is only passed along the umbilical cord from mothers to their daughters AND sons. Therefore, it can only give information about your mother's maternal line. Both women and men can be tested. Mitochondrial DNA is the most stable of the DNA used for genetic genealogy. Therefore, it is the most reliable for tracing deep ancestry.

Autosomal DNA is passed from both fathers and mothers to both daughters and sons; BUT it is recombined (mixed) up before it is passed on. Each person gets about half of their DNA from each parent but it will be a different mix than that received by a sibling. Both men and women can be tested. Since it gets remixed with each generational transfer it is only useful to trace back a few generations.

Background reading:

Check out my blog, "**Dr D Diggs Up Ancestors**" <http://blog.ddowell.com>. Read the particular posts on:

1. Y-chromosome Testing, April 7, 2010.
2. Mitochondrial DNA, April 13, 2010.
3. Full Genome Segment (FGS) Mitochondrial Testing, April 16, 2010.
4. Testing Family Members as Surrogates, April 17, 2010.
5. Autosomal DNA, April 24, 2010.
6. Autosomal DNA, April 25, 2010.
7. More Autosomal DNA, May 26, 2010.
8. Where Should I Have My Autosomal DNA Tested? March 2, 2012.
9. DNA Projects: It's NOT Just About Individual Results, October 3, 2011.



On class website: www.ddowell.com/class

10. Should we DNA Test the "Older Generation"? August 4, 2011.
11. Another Ana-Baptist Ancestress??? March 21, 2012.
12. Dr D finally meets Your Genetic Genealogist, June 16, 2011.

David Dowell, *Crash Course in Genealogy*, 2011, Chapter 10. In Richland Place Library and on www.Amazon.com

Bryan Sykes, *The Seven Daughters of Eve*. (2001) is available at most libraries and bookstores. The holdings of most libraries can be searched in one step at <http://worldcat.org>.

Finding Family with DNA Testing: <http://www.dna-testing-adviser.com/>; contains Information on testing companies and Dick Hill's search for his biological parents that was featured in the *Wall Street Journal* in 2009 and now in Richland Place Library.



International Society of Genetic Genealogists is a free society for those who try to keep each other up to date with the rapidly evolving field of genetic genealogy. The society's website can be found at <http://www.isogg.org/>. Check out the rich array of resources that can be found by clicking the

FOR NEWBIES

icon.

What percentage of my DNA do I share with relatives?

<https://www.familytreedna.com/img/familyfinder/whatpercentage.jpg>

Other blogs for breaking news:

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

Your Genetic Genealogist (CeCe Moore): <http://www.yourgeneticgenealogist.com>

DNA Explained (Roberta Estes): <http://dna-explained.com/>

Testing options: Tim Jansen, MD, Autosomal DNA Company Comparison Chart: **DRAFT** May, 2012: (current cost \$99)

<http://dl.dropbox.com/u/21841126/Autosomal%20DNA%20company%20comparison%20chart.rtf>

Check for DNA results on a surname even before you test:

- www.FTDNA.com
 - Search your surname of interest name
 - Choose a project
 - Go to project website
 - Select “**y-Results**” (or equivalent)
 - Look for an “earliest ancestor” to see if one may match your line/location
 - Note haplotype
- www.ySearch.org Search for surname of interest