TESTING SITES

23 and Me
www.23andme.com/en-gb

Ancestry DNA
www.ancestrydna.co.uk

Family Tree DNA
www.familytreedna.com

Living DNA
www.livingdna.com

My Heritage DNA
www.myheritage.com/dna

To the Letter DNA
www.totheletter.com

Books
Guide to DNA Testing and Genetic Genealogy by Blaine T Bettinger
Genetic Genealogy: The Basics and Beyond by Emily D Aulicino.

Website
International Society of Genetic Genealogy: ISOGG

Facebook
DNA Help for Genealogy (UK)
Genetic Genealogy Tips & Techniques

DNA Tools

GEDmatch Genesis: A free tool to enable you to search for matches with people who have tested with the several DNA companies and carry out more in depth analysis of them.

DNA Painter: A free tool to help you analyse the data of several known matches and estimate the possible relationships of unknown matches.

YouTube
Using DNA in Your Genealogy: Tips from Blaine Bettinger
Autosomal DNA demystified: Debbie Kennett
A DNA Match with no tree? No problem!: Southard and Cooke
DNA Painter: Blaine T Bettinger

Archives +

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DNA FOR FAMILY HISTORY RESEARCH

This is a basic introduction regarding the use of DNA testing for researching your family tree. It is not an in-depth analysis of the subject but more a practical guide to what it is and how you can use it in your research.

The most popular DNA test available to researchers is the Ancestry autosomal DNA test (atDNA), and this test that will be our main focus.

DNA testing is used to assist family history researchers to identify person matches in their family trees, confirm or disprove family tree branches, find parentage relating to non-parental episodes (NPE) - usually to identify an unknown father, or in adoptions to assist in the finding the unknown family of either or both the male and female lines.

When using DNA testing to build your family tree, it is important to understand the need to provide an evidential paper trail, as DNA alone cannot provide sufficient information, especially for low-level matches of distant relations. Also, you will need to load an extensive family tree with your online tree provider to find anything. Many searchers don't want their family trees online for various reasons and this drastically reduces the value of autosomal DNA testing.

DNA is passed down to you from your parents at roughly 50% from each parent, although this will be randomly distributed amongst siblings i.e. if you think of a pack of playing cards containing your parents DNA being shuffled, with the red cards representing the mothers DNA, black cards the father's DNA, both the red cards and the black cards being distributed 50/50 to one sibling, being put back together and the process repeated with a second sibling, you will see that each sibling will have some matching cards and some cards that are different. The DNA passed on to you from your grandparents, x2grandparents, x3grandparents etc, gradually diminishes by roughly 50% each generation, resulting in the likelihood that whereas one sibling may find a DNA match with a distant relation another sibling may not show the same match. This is why it is recommended that you test as many

family members as possible, and if you have parents or grandparents still alive it would be provident for you to get them tested, due to their closer link to the past generations.

DNA testing is able to identify ethnicity and the regions of the world where your family originated - more specifically within the UK and Ireland. The limitations of this process is that of its database, as the information it contains is based on the data entered into the system, i.e. there will be several countries that will have little or no representation within the database, whereas others may be over represented.

TYPES OF TESTS

Autosomal test (atDNA) is the most common test used by researchers, and can be taken by both male and females, enabling testing for and identification of family members on both your paternal and maternal family lines. You can also transfer your results from this test to several different DNA test providers and companies that can provide low-level health information i.e. Promethease, Genomic.

The autosomal test (atDNA) is sold by all DNA companies i.e. Ancestry; Family Tree DNA; Living DNA in association with Find My Past; My Heritage; 23 You And Me.

Y-DNA test can only be used by male donors. The test is used for tracing the direct male line as Y-DNA is passed down virtually unchanged from father to son, and identifies the haplogroup/genetic clan to which you belong. It can assist in finding surname matches to families where you haven't yet found paper matches.

mtDNA (mitrochondrial) **test** is available to both males and females and is used for tracing the female line only, being passed down unchanged from mother to child. This test is the least useful of the DNA tests in that the matches it makes are generally rooted in the far too distant past to enable viable matching with identifiable family.

Family Tree DNA and Living DNA provide all of the above tests at different gradings, either singularly or in packaged form - please see their websites. If you have taken an autosomal test with either of them this can be upgraded, at a cost, to test at different levels. If you have transferred an autosomal test in to them from another company you can still pay to have separate tests of mtDNA or Y-DNA.

'To The Letter DNA', an Australian company, has been able to isolate DNA from letters and postcards. The resulting DNA raw data file can be transferred to GEDmatch for comparison. The main problem with this process is that there is no way of knowing whether or not the DNA is definitely that of your ancestor or someone else.

The autosomal DNA test sold by Ancestry is the most popular test used by family history researchers. It has the largest database of any other DNA company, the best searchable on-line trees by paid subscription, and you can transfer your Ancestry DNA Raw data to several other sites without having to pay to test with them. This enables the researcher to enlarge the number of databases over which their DNA can be compared.

Issues

There have been a number of concerns highlighted regarding what happens to your DNA once it's tested. When your DNA test goes live, you will be asked to accept or decline the use of you DNA for further specified/unspecified research purposes. You can chose to opt in or out, which should help to provide assurance that your DNA will not be made available to third parties, or utilised for any purpose except legal action.

There is the need to be aware that you may discover information that you were unaware of such as "non parental events" and adoptions, that could create repercussions for both yourself and/or your family

There are a number of DNA testers who will maintain a private family tree or have no family trees for you to explore, wanting only to learn about their ethnicity with no interest in family history research.