Did you get a DNA Test Kit for Christmas? If you did there’s no point in me discussing here how to choose which testing company to use or which test to purchase. However, you may already have your result and the following might help to explain what the test will reveal.

There are three types of test on offer, although some tests look at more detail than others.

Y-DNA

This is the part of DNA which is easiest to understand. All males receive a Y chromosome which is a copy of the Y carried by their father, this is almost an exact copy of the father’s Y-DNA so it can be expected that men with matching Y chromosomes will have the same surname. However, it doesn’t take long to think of a number of reasons why this would not be so. The Y has been passed down the male line for thousands of years parts of the chromosome reveal a man’s Haplogroup which can be used to trace the origins of his ancient ancestors. As more people are tested suggestions of the area of the world where the haplogroup originated are becoming more accurate.

Autosomal (also given names such as Family Finder)

Probably the most common type of test, this test looks at chromosomes which are passed to each of us by both parents. A baby has chromosomes which are a combination of those of each parents, imagine the chromosome as a chapter in a book produced by cutting and pasting sections from either parent’s chapter to make a new one for the baby. These sections could be a word, sentence, paragraph or whole page. As this process is repeated in every generation the longer the sections that match between two people the closer the relationship between them is likely to be. It is by looking at how many sections match between two people and the size of those sections that the testing companies estimate how closely you may be related to those matches that they report to you. Of course they can only match you with other people who have also tested with them or transferred their test results to them. A warning here, many of the people to whom you are matched will know little about their family tree, possibly not even who their grandparents were. A significant proportion of those testing were adopted and are hoping to find their biological family. Matches can be related to you on any branch of your family tree, generally within 5 generations.

The autosomal test will also analyse the X chromosome. Everyone gets one strand of X which is formed by cut and paste between the two X strands of their mother. Females also carry an X strand which is a copy of that of their father. So if you are a close match to someone on the X chromosome you are not related through your father’s father, in the same way other sections of your ancestry can be dismissed when trying to identify how you are linked to your X matches.

Your ancient ethnic origins might also be suggested by your test results as noted above this analysis will become more accurate as more people submit DNA for testing

Mitochondrial DNA (mtDNA)

This is an area of DNA which everyone inherits directly from their mother. Mutations in this area only happen occasionally so someone who matches to you could share a female ancestor thousands of years ago.

This is a very short and basic explanation and I have barely touched on changes (mutations). There are whole books explaining in detail the inheritance of DNA. But such detailed knowledge is not needed for exploring your matches, you may find relatives that you can add to your family tree, relatives of which you were aware but had lost track or even someone who knows where you fit into their tree and can give you lots of information. Should you not find anyone that you can prove a link to, don’t despair you may be able to transfer your results to another company and be compared to another large database of people and you should look back from time to time as a relative could be added at any time.

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*This and some of my previous articles are available on www.unicornfamilyhistoryresearch.co.uk*