

ASK THE WIFE! A DNA RESEARCH STRATEGY

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In the year 2000 the first direct-to-consumer DNA tests were being offered for the first time and came in two varieties: mtDNA and YDNA. YDNA, tracing a direct male line, was much more popular, likely due to its utility. It could help with all kinds of genealogy questions. The mtDNA, tracing a direct maternal line, wasn't quite as helpful. So somewhere in those first few years, people began to think of DNA testing as something only men could do. Of course, that wasn't really ever true, and it certainly isn't true today.

MTDNA

While it may not be as useful as its male counterpart, mtDNA testing does still have some utility in genealogy research. There are two parts to your results, a haplogroup and a match list.

mtDNA Haplogroup

A haplogroup is a deep ancestral group. That means that it describes the heritage of your direct maternal line on a very extended scale- think tens of thousands of years ago.

Knowing your haplogroup can act as a GPS- a genealogical positioning system to help you better understand where your line originated. Some haplogroups can be very specific, even helping you understand a country of origin for your ancestors- but that isn't always the case. Visit www.eupedia.com/genetics and look through their genetics and anthropology section to learn more about your European haplogroups.

mtDNA Matches

The power of mtDNA testing is in finding matches to your DNA profiles. A match indicates that you share common ancestry with that person- you are genetic cousins! But not all matches are created equally. Most of the time, for your mtDNA, you want someone who is an EXACT match to your profile before you consider pursuing a genealogical relationship.

Women were restricted to using mtDNA until 2007 when the first autosomal DNA test became available through 23andMe, quickly followed by Family Tree DNA and AncestryDNA, then joined in 2016 by MyHeritage DNA and Living DNA. This officially made men and women full participants in genetic genealogy.

XDNA

XDNA is often confused with mtDNA. Most people have some inkling that it is associated with women, but mistakingly assign it only to their mothers. XDNA inheritance is unique in that men

do only receive XDNA from their mothers, as they inherit a YDNA from their dad. So for men, it is true that the XDNA they have does represent their mother's side of the family. For women it is more complicated as women receive an X from both of their parents. You can view more details, including the inheritance pattern charts for both men and women at www.yourDNAguide.com/xdna.

We can use XDNA sharing to help us see how DNA matches are related to us. You can only see XDNA matching information on 23andMe and Family Tree DNA. Simply put, if you are sharing XDNA with a match, then you should share a common ancestor along one of the given ancestral lines. However, XDNA sharing can be tricky. You will want to double check how much XDNA is shared, as it is often only a very small amount, which means you shouldn't draw any conclusions about your relationship.

ASK THE WIFE! USING WOMEN IN AUTOSOMAL DNA MATCHING

In autosomal DNA testing our goal is often to find groups of people in our match list who are related to each other. Once we have identified this genetic network, we can do genealogy to figure out how this group is related to each other. Finding their common ancestor often leads us to our common ancestor.

However, DNA inheritance can be tricky. People who are second cousins can share a similar amount of DNA as second cousins once removed, or even third cousins. So determining a genealogical relationship based only on the amount of shared DNA can be difficult, and even dangerous.

To better sort out relationships we take a close look at genetic groups. We might see that a group of our matches are connected to the Hazel family. We see descendants of Michael and Sarah Hazel, and Michael's brother James and Rachel Hazel, and even cousin William Hazel and his wife Mary. From these matches we can definitely see we are somehow connected to this family, but it is difficult to see exactly how. To find out, we need to ask the wives!

If you are a descendant of Michael and Sarah, you will also have DNA matches to Sarah's family. So you look for evidence of a connection to her maiden name in your DNA match list. You do likewise for other members of the Hazel family until you find that second connection - that DNA match group that connects you to the wife (or husband, if you are actually connected through a Hazel female) of the Hazel family.