

You Can Do DNA

Do: Take The Right Test

Presented by Christi Jacobsen - Christi@yourDNAguide.com - www.yourDNAguide.com

There are three kinds of DNA tests you can take for family history purposes, and five major testing companies offering testing. That adds up to a lot of choices! Let's go over the three test types, and highlight the five major companies.

Test Types 1&2: YDNA &mtDNA

Available at www.FTDNA.com, with partial results at 23andMe and LivingDNA

The YDNA test can reveal information about your direct paternal line. Only males can take the test, so if you are a female, you will need to use your powers of persuasion to get a brother, father, uncle, or cousin to test for you.

The mtDNA test traces your mother's mother's mother's line. Both males and females can take this test to represent their own mtDNA lines.

Test Type 3: Autosomal DNA

Available at FTDNA.com, 23andMe.com, AncestryDNA, MyHeritage, and LivingDNA.

Autosomal DNA (atDNA) traces both sides of your family, but is currently limited in its genealogical reach as it can only help you back about 6 generations. We are limited to so few generations because of the way autosomal DNA is shuffled and halved at each generation. To evaluate which testing company to choose, you should consider factors such as total number of people in the database, the available genetic and genealogical tools, the necessity of a subscription to the website, website interface, and cost. You can also take advantage of transferring your data between companies. For more details see www.yourDNAguide.com/transferring.

Do: Understand Your Ethnicity Results

Presented by Diahn Southard - guide@yourDNAguide.com - www.yourDNAguide.com

There are three factors effecting your ethnicity results and understanding them will help you better understand your results.

Reference Populations

The reference populations are the people that the company is comparing you against. These are individuals who have all four grandparents from a small geographic area.

Fancy Math

While it seems simple enough to figure out where you are from once you have an

established reference population, it isn't actually all that straight-forward. There is a bunch of really fancy math involved. Each company is making these calculations in a different way, meaning that we can't expect to get the same answers from each of them.

Time

One of the biggest factors you need to take into account when evaluating your own admixture results is time. Remember the Mango analogy we talked about in class will help you better understand your admixture results and give you insight into the complicated matter it is to determine your origins based on DNA.

Do: Work With Your Matches

Presented by Dana Leeds - leeds_dana@yahoo.com - www.danaleeds.com

The goal of the Leeds Method of DNA color clustering is to sort your DNA matches according to groups based on your four grandparent lines. This method creates clues you can use to work on a specific research question or a specific branch of your family.

This method does not require any previous knowledge of your tree and can be used by those working with autosomal DNA for the first time. Your results may vary depending on which of your relatives have tested and/or whether or not your four grandparents have any common ancestors.

Creating a Color Cluster Chart

1. On a blank spreadsheet, list in order all matches in the 2nd & 3rd cousin groups who share less than 400 centimorgans (cM) of DNA with you. If you don't have many matches, you can also list some of the matches in the 4th cousin group.
2. In the second column, assign a color to your first DNA match by filling in the cell with a color
3. In the same column, assign the same color to all that person's Shared Matches
4. Start a new color cluster column with the next person who has not already been assigned a color
5. Repeat steps 3 & 4 until each person has been assigned at least one color

Note about First Cousins:

We do not use our matches in the 1st cousin and 2nd cousin groups who share more than 400 centimorgans (cM) to create our original color cluster chart because likely they are 1st cousins who share more than one grandparent with us and "tie" two grandparent groups together instead of sorting them apart. But, after creating our chart, we can look at these 1st cousins and higher 2nd cousin group matches to help identify our color clusters. For more information, see www.danaleeds.com/leeds-method-dna.