

What's with the hype about DNA testing?

Those ads – you know those ads – from Ancestry DNA and 23andMe – kilts and lederhosen and health – what are they selling, and what does it all mean?

Ancestry.com has been around since 1983. This subscription site is a repository for millions of civil documents, military documents, census records and newspaper articles. Genealogists and family historians use the site to research and to store their family tree data. DNA testing is a newer addition to the site, and can be used by itself or in conjunction with the other tools.

WHAT DOES DNA TESTING HAVE TO OFFER?

The test offered by Ancestry is an Autosomal DNA test. This test examines the 22 pairs of chromosomes that you inherited from your parents. You got roughly 50 percent of your autosomal DNA from each parent, and they got about 50 percent from each of their parents. Mathematically speaking, your DNA is made up of roughly 25 percent from each of your four grandparents, and so on for your great-grandparents, etc. So if you do a test, and your first cousin does a test, Ancestry (or the other testing companies) can analyze and compare your DNA, and will recognize that you are first cousins due to the

amount of shared DNA that you each received from your common grandparents. This ability to compare cousins is reliable up to about the fourth cousin level, where the shared DNA may no longer be detectable.

Another useful result of DNA testing is the ability to estimate your ethnicity. The testing company can compare your DNA results to a number of worldwide populations, and estimate how closely your DNA resembles their DNA. The caveat here is that this is an estimate — people in every part of the world have been affected by migrations and invasions; no population can be said to be pure. So if your results indicate that you are 80 percent Irish, you are probably of Irish descent. But you cannot use it to prove that your great-great-great-grandmother was a Cherokee Indian — the DNA that she carried is most likely lost to the current generation.

WHICH COMPANY IS BETTER TO TEST WITH?

There are currently three companies offering autosomal DNA testing — Ancestry.com, 23andMe.com and FamilyTreeDNA.com (FTDNA). The

GUEST COMMENTARY

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differences:

- Ancestry.com has the largest database. If you are a subscriber, it is easy to see if you have DNA connections with people who have the same ancestors in their family trees. The cost is currently \$99, and sales are run periodically.
- 23andME offers something unique — health information based on their analysis of your DNA. Reports can be run to indicate whether you have any propensity towards genetic health issues. The current cost is \$199, however you can order a watered-down version which will not include those health reports for \$99.
- FTDNA has the second largest database of testers. It includes some tools that are useful if you are searching for matches for genealogy. Their test is now priced at \$79.

All three companies offer nice pie charts with ethnicity breakdowns, and tutorials about how to interpret your results.

If you are new to genealogy, you may want to hire a professional to help you. Those DNA results can be scary and confusing; a professional, working on an hourly basis, can guide you through the maze, analyze your results, and make recommendations for furthering

your research. A list of genealogists who specialize in DNA can be found at the website for the Association of Professional Genealogists (www.apgen.org).

If you are determined to learn on your own there are several Facebook groups devoted to DNA, and there are videos and webinars available online. Local genealogy clubs sometimes have speakers about DNA. There are even local focus groups, such as MassDIG, which meets at the Joshua Hyde Library in Sturbridge on the first Thursday each month.

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NEWS BRIEF

Berthiaume announces office hours

State Rep. Donnie Berthiaume will hold office hours at the following locations: