

Understanding the Ethnic Ancestry in Your DNA Test

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The inclusion of ethnic ancestry reports in autosomal DNA test results has greatly expanded the market for these tests. But there is considerable confusion about such reports. This session is designed to shed light on the subject and provide numerous comparative examples.

Why Results Don't Match Expectations

- People expect “ethnicity” to match recent ancestors’ countries of origin
- Instead, they get “admixture” reflecting hundreds of additional ancestors
- Contributions from four grandparents are often unbalanced
- Some regions are difficult to distinguish, e.g.
 - Scandinavian vs. British Isles
 - French vs. German
 - Italian vs. Middle Eastern
- Small components may be real or just statistical noise

Why Results Vary by Company

- Different “chips” sample different locations in our DNA
- Different reference populations
- Different proprietary algorithms
- Different regional groupings
- Examples will be shown, including one person on seven tests

Why Results Vary for Siblings

- Random inheritance
- Examples of siblings on different tests will be shown

Some Ethnicities Stand Out Clearly

- African
- Asian
- Ashkenazi Jewish
- Native American

Yet Native American DNA is Rarely Found in Americans of European ancestry

- Only 2.7% show any Native American DNA
- Less than one percent have 2% or more

Why Native American DNA is So Rare

- Dilution of ancient native DNA through mixing with Europeans
- Multiple generations back to the Native American ancestor
- Incorrect assumptions based on family stories or physical characteristics

Having Native American DNA is not the same as being Native American

- To be Native American an indigenous community must claim you
- No DNA test can prove that you are (or are not) Native American

DNA Tests to be Compared in this Session

- AncestryDNA
- 23andMe
- FTDNA's Family Finder
- MyHeritage
- Living DNA
- Geno 2.0
- Insitome

Test Subjects for Illustration

- A person of European ancestry with 50% confirmed deep ancestry from one small area
- An African-American
- A person of Mexican ancestry

NOTE: Testing companies will occasionally update our results based on additional reference populations and/or algorithm refinements. To ensure the very latest results in this session, screenshots will not be captured until shortly before the conference. As a result, none can be included in this syllabus due 15 weeks earlier.

DNA Ethnicity Tests to Avoid

- Three indicators that you're wasting your money

Additional Ethnicity Estimations at Zero Cost

- Taking advantage of free transfers
- Admixture utilities at GEDmatch.com

When Other Test Types Can Help

- A Y-DNA example