

## DNA Testing Other Relatives

By Sara Allen

Before testing a relative, be sure to tell them:

- Why you want their DNA
- What to expect with results
- Risks to privacy
- Law enforcement access to DNA
- Unexpected results may ensue – unknown adoptions, family secrets

After results come back:

- Show them their results
- Do not share their results with others without their permission (unless you privatize all personal information)

See: Board of Certification of Genealogists Ethics Statement: <https://bcgcertification.org/ethics-standards/code/>

Y-Chromosome DNA Test (Males only)

- Test of a male's direct paternal line (father's father's father's etc.)
- Males should test themselves just for posterity
- Females should try to find a male line relative from father's side to test, also for posterity
- If you have a brick wall on a male line, try to find a male line descendant of the mystery male ancestor to take the test
- Adoptees should take an autosomal test first
- Order Big Y 700 if you are able to, but 37 markers is OK
- Order from Family Tree DNA testing company

Mitochondrial (mtDNA) DNA test

- Test of a male or female's direct maternal line (mother's mother's mother's etc.)
- Males and females should test themselves, just for posterity
- Males and females should also try to find a relative on their father's side to test for their father's maternal line, just for posterity
- Matches may be outside of the genealogical time frame, so don't despair if you can't connect to match's family tree
- Adoptees should take an autosomal test; mtDNA not helpful for most adoptees
- Helpful in certain female line questions; consult with an expert to see if your question could be answered by mtDNA
- Order full spectrum test
- Order from Family Tree DNA testing company

Autosomal DNA test

- Males or females can take this test
- Autosomal DNA inherited 50% from father and 50% from mother; cut that number in half for each successive generation back
- Will find DNA matches to descendants of ancestor couples going back to about 5-8GGs; you will no longer inherit measurable autosomal DNA from ancestors farther back in the tree
- Males and females should test themselves, their parents (or an aunt or uncle on each side); their grandparents (or a great aunt or uncle on each side).

- A concerted effort should be made to test the earlier generations first
- Testing 2<sup>nd</sup> cousins descending from each 1GG couple is a secondary priority
- Adoptees or those with recent family mysteries should take tests from all 4 testing companies, if necessary, to solve mystery
- Order test from 4 companies: Ancestry, Family Tree DNA, My Heritage, and 23andme.
- Ancestry has the largest database of testers and is often the first place people are advised to test

#### Benefits of testing other relatives:

- Older generations who take the autosomal test will share more DNA with more distant ancestors
  - They will have more matches to these distant lines and share more DNA (cMs) with the matches
  - They will have different matches than the younger generations have
  - Because we all inherit our DNA segments randomly from our parents, siblings, grandchildren, and other relatives will inherit different segments of DNA from ancestors, which results in different matches.
    - Contact all matches to share information, documents, photos, stories, etc. and benefit from cooperation in research goals
- Y-DNA and to a lesser extent mtDNA is good at solving mysteries on a certain family line.
  - Finding a relative who inherited that Y chromosome from the mystery ancestor who will agree to test may be crucial to solving the mystery
  - Or finding someone on the mtDNA inheritance path for a female ancestor could also solve your mystery

#### Techniques for getting relatives to test:

- Establish a personal connection if possible
- Talk about shared relatives or connections in common or events in family history
- Build rapport
- May have to cold call strangers
- Maybe reach out to those with trees on family genealogy sites who may be interested in genealogy
- Expect to pay for their testing