

How Far Back Can You Trace Your Tree Family with atDNA?

[Video Link](#)

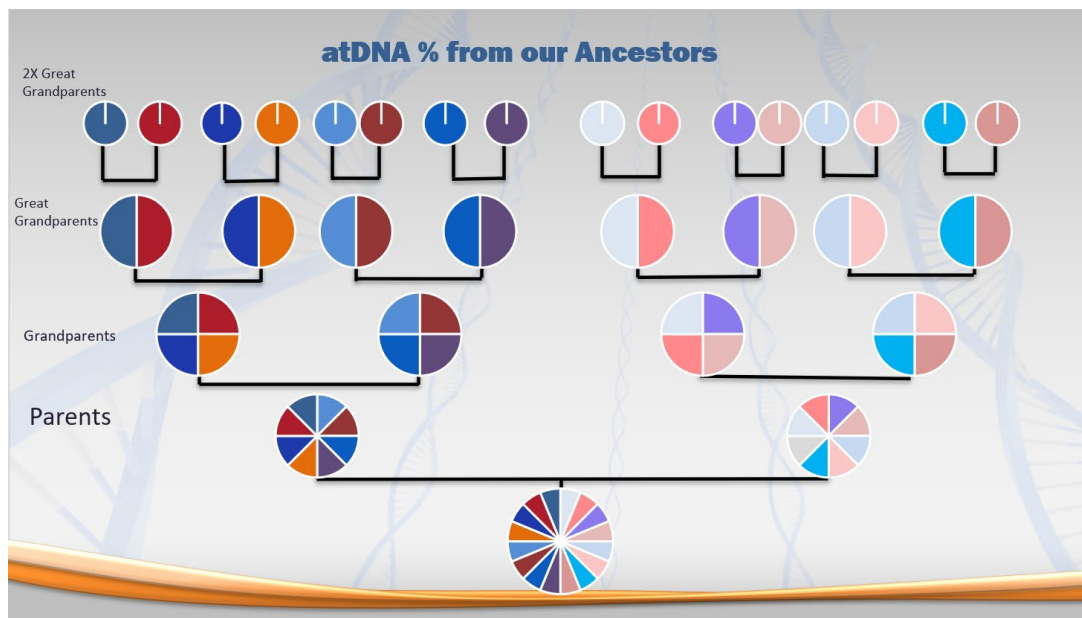
Autosomal DNA (atDNA) is the kind of DNA that you would find on all DNA ancestral websites like **AncestryDNA**, **MyHeritage**, **FTDNA** (known as Family Finder), and **23andMe**. Here we're talking about how far back you can trace your ancestors using atDNA. I call this the shotgun view of the family tree as it looks at the entire tree. The only downside is that you inherit only half of the DNA from each parent. Thus, the DNA eventually dies out somewhere around the 4 to 6 x Great Grandparents.

Centimorgans

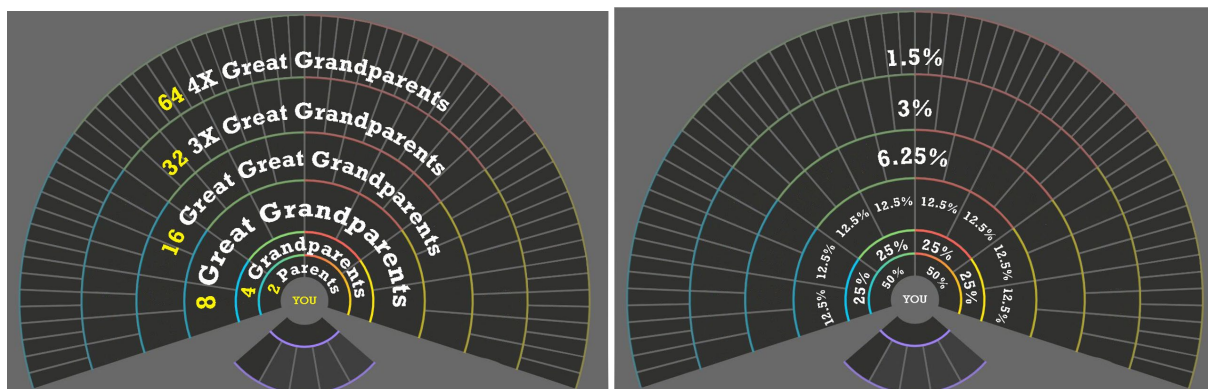
Simply said, a centimorgan (cM) is a genetic unit of measurement that equals the amount of DNA you have in common with another family member or DNA cousin.

50%-50% DNA from Each Parent

Autosomal DNA (atDNA) is inherited 50% from your father and 50% from your mother. Your inheritance divides in half with every generation backwards. Therefore, you inherit about 25% from each grandparent, about 12 1/2% from each great grandparent, and so on. Thus, you inherit about 1/16th of the DNA from each 2X Great Grandparent.



Keep in mind that you should have 64, 4X Great Grandparents (if there were no cousins who married each other within this time frame). Also, at the 4X Great Grandparent generation you likely have inherited about 1.5%.



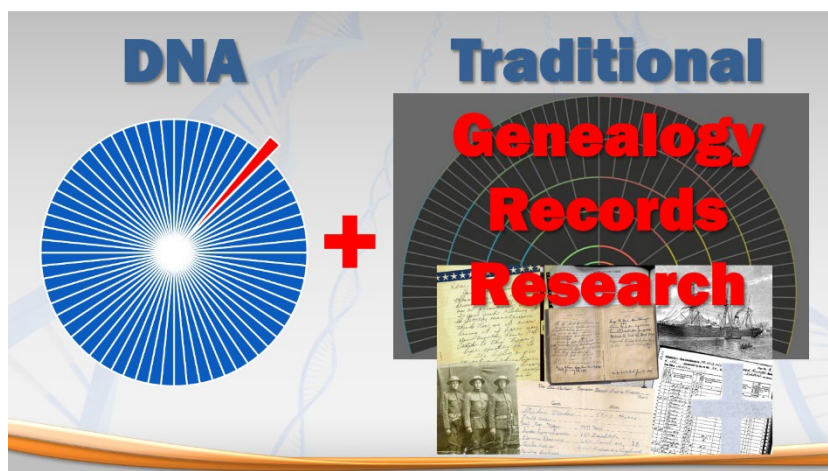
The experts suggest that atDNA cousin matches are viable down to about 10 cM. Depending on how the average generations (in years) stack up in your family tree, (for example the distance in years between each generation) will factor into how far back you can go.

Also keep in mind that if there were DNA cousins who descend from another spouse, you would have a half relationship with that DNA cousin.

For example, if your Great Great Grandfather married twice and you descend from the first wife and your DNA cousin descends from the 2nd wife, then you would be a half 3rd cousin. Thus, the cM count would be less than that of a full 3rd cousin.

Per [DNA Painter](https://dnainter.com/tools/sharedcmv4-beta)¹ the average for a full 3rd cousin is 73 cM whereas a half 3rd cousin average is 48 cM. However, both full 3rd cousins (0-234 cM) and half 3rd cousins (0-168 cM) overlap in cM's.

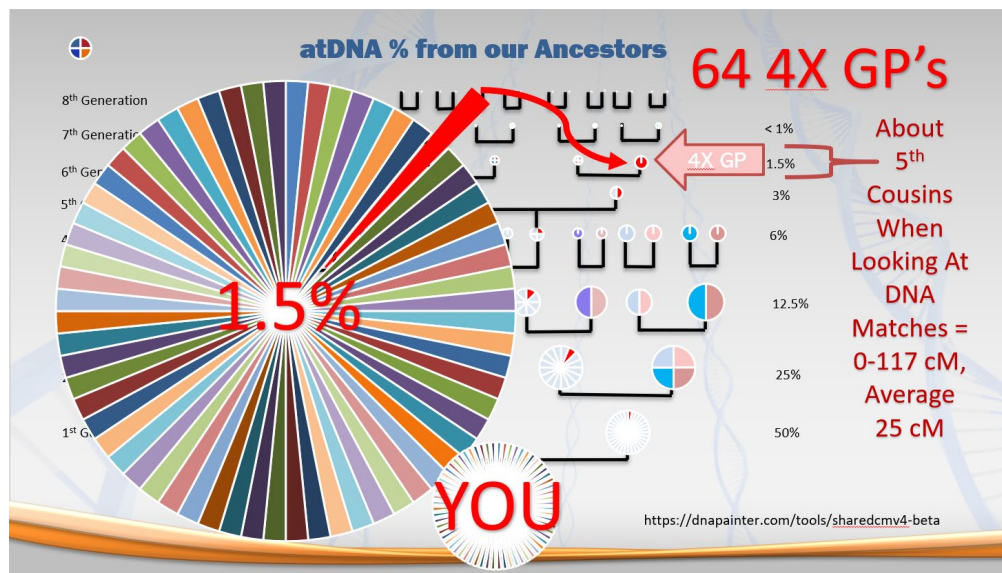
This is why it is so important to do quality traditional genealogy in combination with DNA research to help prove the lineage between you and that DNA cousin.



¹ <https://dnainter.com/tools/sharedcmv4-beta>

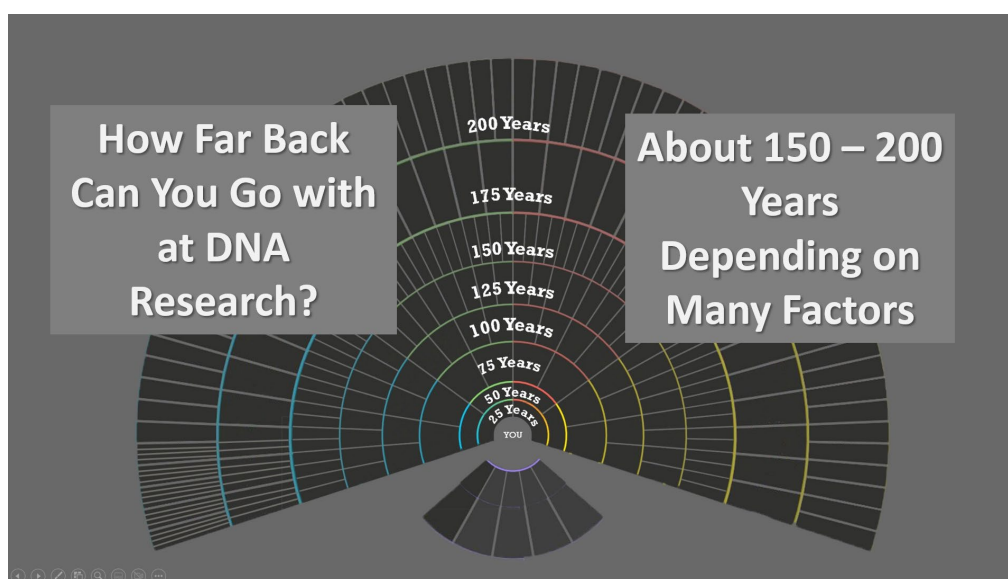
Why Don't You Have a DNA Match with a Known Cousin?

In looking at this graph, if you only inherit 1/64th of your 4X Great Grandparent's DNA then the odds are good that another proven cousin might not have the same DNA because they may have inherited a different slice of the 4X Great Grandparent pie.



How Far Back Can You Trace Your Family Tree with atDNA Cousin Matches?

Many factors are going to play into how far back you can go with your DNA research. Some may be how young each generation had children while others might be half relationships or multiple half relationship diluting the centimorgan count. Some factors may also be if there was any pedigree collapse (cousins who marry) or endogamy in the family tree.



Recommendations

- FOCUS ON ONE BRANCH OR ANCESTOR AT A TIME.
- Always use traditional genealogy in combination with DNA research.
- Work the closest matches first to flush out your tree.
- Always work backwards starting with present day and then go back in time.
- Use Custom Tree Tags on Ancestry (if using Ancestry) to identify “Floaters” for DNA Cousins you wish to research.
- Depending on how many DNA cousins you have and which branch you are researching, try to stay above 10-25 cM. Personally, it is rare that I research below 40 cM’s, but it depends on your goals and how many DNA cousins you have.

Other DNA Videos

[Ancestry DNA Separating Parents Ethnicity](#)

[Y-DNA Results with Genetic Genealogist Diahna Southard](#)

[AncestryDNA's New Update: Dividing DNA Cousin Matches by Your Paternal and Maternal Branches](#)

[Use DNA Cousins without Trees \(Ancestry\)](#)

[DNA Basics for Genealogy Research](#)

[DNA - When Cousins Marry: Pedigree Collapse vs Endogamy](#)

[DNA Playlist of ALL Videos on GTV](#)

[DNA Playlist \(Short List\) for Ancestry Users](#)

Genealogy TV Academy

Learn about family history research at the Genealogy TV Academy where I teach skills needed to help you go further, ancestor by ancestor. Once you learn good organizational and research skills, you can use them over and over again, generation by generation.

To learn more at GenealogyTV.org or click the Academy logo here.



Diahan Southard DNA Deep Dive into DNA Courses

If you want to take a really deep dive into DNA research, I highly recommend Diahan Southard's courses. I have taken her skills workshop and her Y-DNA course and they are great. They are a lot of work, but worth the effort.

YOUR DNAGUIDE Diahan Southard

Your DNA Guide The Academy DNA SKILLS Workshop

Your DNA Guide The Academy YDNA FOR GENEALOGY Course

Your DNA Guide The Academy ENDOGAMY & DNA Course

<https://www.YourDNAGuide.com/ref/6/>