

## Barron DNA Project: How do we form new clans?

On the Barron DNA Project website, you will notice a lot of references to Barron clans. To learn about the different Barron clans, and to help determine which clan might be yours, see our page on [Barron Project Y-DNA Clans](#). But this document is for those who are interested in delving into specifics of how new Barron clans are established.

New Barron clans are created by the administrators of the Barron DNA Project, a volunteer group formed at Family Tree DNA, one of the few DNA companies that offers Y-DNA testing. Currently, there are five administrators: John Barron and Vicki Barron Kruschwitz, who helped found the Barron DNA Project back in 2003, and Michael Barron, Kristine Mendes, and Jon Andersen, who joined our admin team several years ago, as our membership began to rapidly grow.

Okay, so just how do we form clans? Males who have Y-DNA tested at Family Tree DNA can request to join the Barron DNA Project. So what is Y-DNA, and why use it as a basis to identify clans? Y-DNA tests focus on the Y chromosome passed from a Barron father to Barron son, generation to generation, virtually unchanged over many centuries. This Y chromosome stability allows us to quickly and conclusively confirm whether two male Barron descendants are related.

If two or more members match on Y-DNA, then a clan is formed. Or, sometimes we administrators discover in the larger Family Tree DNA database Y-DNA matches to current members of the Barron DNA Project, and we invite them to join. In other instances, we see Barron males who have Y-DNA tested who do not yet match an established clan, but we invite them to join the Barron Project in hopes of later finding matches for them.

How do we evaluate Y-DNA matches? While Family Tree DNA provides basic information about the matches, an administrator must decide whether the Barron Y-DNA matches are close enough that a new member fits into a clan (whether it is an existing clan or potentially new clan), and then place that person into a clan. We use Family Tree DNA guidelines that interpret closeness of relationship based on genetic distance (number of mutations) between two individuals who have Y-DNA tested. See the below chart:

	Y-DNA37 genetic distance	Y-DNA67 genetic distance	Y-DNA111 genetic distance	Interpretation
<b>Very Tightly Related</b>	0	0	0	Your exact match means your relatedness is extremely close. Few people achieve this close level of a match. All confidence levels are well within the time frame that surnames were adopted in Western Europe.
<b>Tightly Related</b>	1	1-2	1-2	Few people achieve this close level of a match. All confidence levels are well within the time frame that surnames were adopted in Western Europe.
<b>Related</b>	2-3	3-4	3-5	Your degree of matching is within the range of most well-established surname lineages in Western Europe. If you have tested with the Y-DNA12 or Y-DNA25 test, you should consider upgrading to additional STR markers. Doing so will improve your time to common ancestor calculations.
<b>Probably Related</b>	4	5-6	6-7	Without additional evidence, it is unlikely that you share a common ancestor in recent genealogical times (one to six generations). You may have a connection in more distant genealogical times (less than 15 generations). If you have traditional genealogy records that indicate a relationship, then by testing additional individuals you will either prove or disprove the connection.
<b>Only Possibly Related</b>	5	7	8-10	It is unlikely that you share a common ancestor in genealogical times (one to 15 generations). Should you have traditional genealogy records that indicate a relationship, then by testing additional individuals you will either prove or disprove the connection. A careful review of your genealogical records is also recommended.
<b>Not Related</b>	6	>7	>10	You are not related on your Y-chromosome lineage within recent or distant genealogical times (one to 15 generations).

Those individuals who are considered Very Tightly Related down through Probably Related (**green font**) are placed into a clan together. If the genetic distance of their match indicates they are Only Possibly Related or Not Related (**red font**), the members are not placed together in a clan.

To be considered for a clan, individuals must test 37, 67 or 111 Y-DNA markers (there are lesser tests, but the results are not conclusive enough for determining a clan). The more markers tested, the clearer the understanding regarding the relationship. At the basic 37-marker level, an individual may show matches with many males other than those who are Barron descendants, so care must be taken in identifying what are true matches. When the test is refined to 67 markers, and especially 111 markers, those other matches drop away due to more mutations (differences in Y-DNA), leaving just the Y matches with Barron descendants (most carrying the Barron surname, with occasional other surnames represented, resulting from Non-Paternity Events in the ancestral line).

Simplifying our thought process: In order for an individual to be assigned to any Barron clan, his 37-marker Y-DNA test results must demonstrate at least a 90% probability of having a Common Barron Ancestor with another individual in the clan within the past 15 generations. If the individual's surname is other than Barron (or does not have records indicating Barron heritage), we require that person upgrade to at least 67 markers to confirm the match on Barron Y-DNA before allowing him to join the Barron DNA Project and be assigned to a clan.

Note that some clans are very closely related, with few mutations occurring. Barron Clan 2 is a strong example of a closely-related clan. Other clans are very loosely related, meaning that some clan members do not match all other clan members (there are too many mutations for Family Tree DNA to identify a match). In this case, we require the potential clan members to upgrade to at least 67 Y-DNA markers in hopes that all clan members will match on that level test. At that point, if there is still no universal match, we use a "bridge" member who matches every potential clan member to bring the clan together. Clans 6, 7 and 8 fall into this category. The common ancestors for these clans may have occurred in the more distant past than those clans which are more closely related. See our page on [Barron Project Y-DNA Clans](#) for information about specific Barron clans.

Once a clan is formalized, Barron descendants who have taken only an autosomal DNA test can be evaluated as a potential member for that clan by confirming their genealogy paper trail, and reviewing autosomal matches with known members of the clan.