



Y-DNA is only passed on from father to son. In this illustration, the common ancestor is the male at the top. His Y-DNA is represented by “ABCDE” and is the “lineage haplotype” or core Y-DNA for his line. Here the ancestor’s YDNA is passed on unchanged to the first generation of sons after him, but by the second generation one mutation (the red Q) has occurred. Usually a mutation will not occur that fast, but often by the third or fourth at least one mutation has happened among one or more of the male descendants. After several generations, say six or seven, mutations (red letters) have occurred in most of his descendants, but as in the example here one male may still carry the original unchanged Y-DNA from the common ancestor.