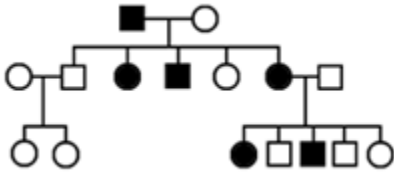


1. What is the pattern of affected individuals you will see on a pedigree for the following modes of inheritance:

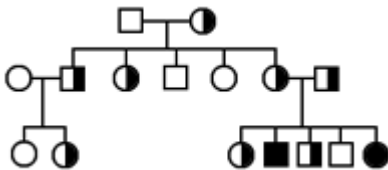
a. autosomal dominant

For autosomal dominant, a parent is affected and it also affects offspring. For the offspring it does not matter the sex.



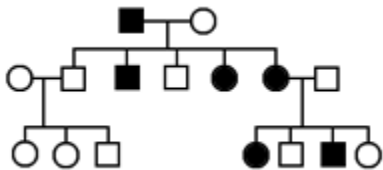
b. autosomal recessive

For autosomal recessive, a parent is not affected, but one or very few of the offspring of the first or second generation will be affected.



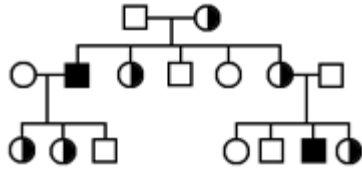
c. X linked dominant

Mostly females will be affected when it is X linked dominant. But there will still be some males that are affected as well. This usually occurs when there is one dominant copy of the mutant allele.



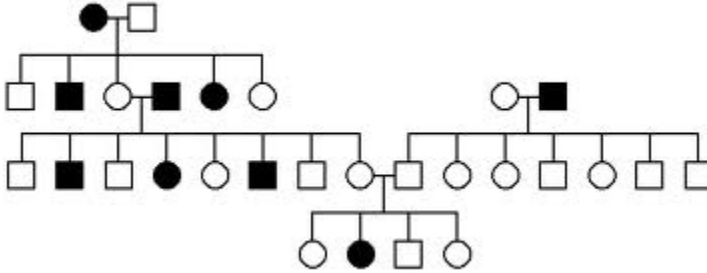
d. X linked recessive

The trait will only be in males because they only have one copy of the X-Chromosome. It is much harder for a female to become affected because they would need two recessive alleles. If the father is affected with an X-Linked recessive trait, all the daughters will inherit at least one copy of the recessive allele.



e. Y linked

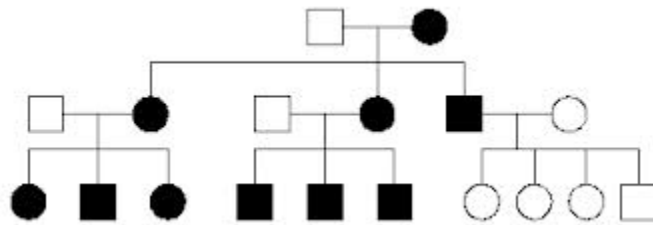
For Y linked mutations, it does not matter if it is dominant or recessive it will only affect males.



from: <http://www.mansfield.ohio-state.edu/~sabedon/biol1128.htm>

f. mitochondrial

Mitochondrial gene is when a gene is passed from mom to ALL of her offspring regardless of sex or what genes dad has.



from:

http://www.ucl.ac.uk/~ucbhjow/b241/mendel_1.html

Information for all the above is from: <http://www.uvm.edu/~cgep/Education/Inheritance2.html>