7.4 Human Genetics and Pedigrees

Human genetics follows the patterns seen in other organisms.

* The basic principles of genetics are the same in all sexually reproducing organisms.
* Females (XX) can carry sex -linked genetic disorders. (X linked traits are the same as sex linked, females only carry the x)
* Males (XY) express all sex-linked genes.
* Expression of the disorder depends on which parent carries the allele (part of a gene) and the sex of the child.
* If the phenotype is more common in males, the genes are likely sex-linked.
* A Pedigree is a chart for tracing the genes in a family.
* An autosomal chart does not show sex-linked traits. (ex. Hemophilia, color blindness)
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* Pedigree charts an also be used to trace sex-linked traits which are only attached to recessive genes.
* A karyotype is a picture of all chromosomes in a cell.

