

| Sex-Linked Disorders   |   |
|--|---|
| <p><b>Males:</b> Much more frequent than in females; No second X chromosome to mask the one X chromosome present</p> | <p><b>Females:</b> Only evident when both alleles are recessive xx; Can be a carrier if alleles are Xx.</p> |

**A pedigree chart is:** A chart for tracing phenotypes and genotypes within a family

| Tracing Autosomal Genes  | Tracing Sex-Linked Genes   |
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| <ul style="list-style-type: none"> <li>• Equal numbers of males and females</li> <li>• People with recessive phenotype must be homozygous recessive</li> <li>• People with dominant phenotype can be either homozygous dominant or heterozygous</li> <li>• Two heterozygotes can have offspring of either phenotype (dominant or recessive) or any genotype (homozygous, dominant, heterozygous, or homozygous recessive)</li> </ul> | <ul style="list-style-type: none"> <li>• More males than females will exhibit a recessive phenotype; Females can be carriers</li> <li>• Females with recessive phenotype have 2 recessive alleles; males with recessive phenotype have one</li> <li>• Heterozygous females do not show the recessive phenotype, but are carriers</li> <li>• Female carriers can pass on a recessive to either a male or female offspring</li> <li>• Males with recessive phenotype can pass the recessive allele only to female offspring</li> </ul> |

**A karyotype is:** Picture of all chromosomes in a cell

**A karyotype shows:** Large-scale changes in chromosomes