Extended Mendelian Genetics

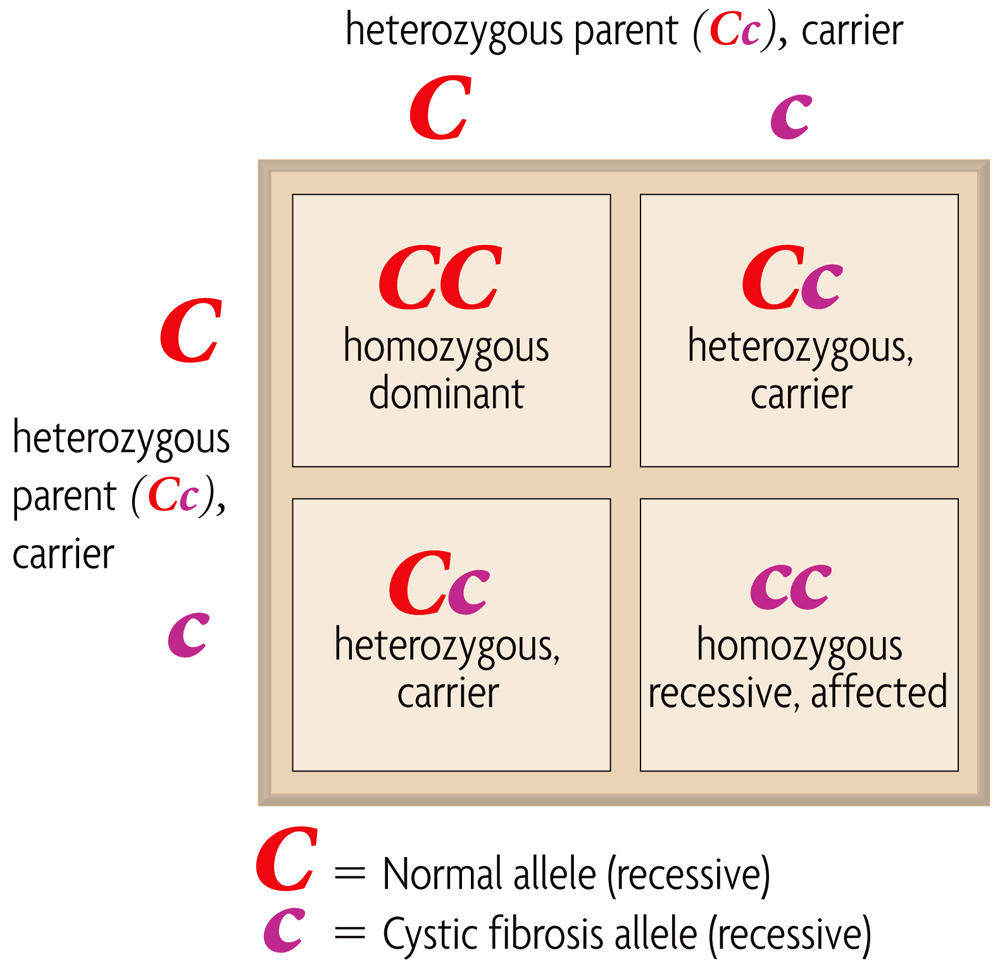
7.1 Chromosomes and Phenotype

Objectives:

Key Concept:

Vocabulary

Autosomal Gene Traits



(dominant)

Sex-linked Traits

Notes

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, on which genes are located, can affect the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* Carrier
* Sex-linked gene
* X chromosome inactivation

\_\_\_\_\_\_\_\_\_\_\_\_\_ copies of each \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gene affect \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* Mendel studied \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gene traits, like \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Other examples of autosomal gene traits:
* Mendel’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ apply to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ genetic disorders
  + A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for a recessive disorder is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Disorders caused by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ alleles are uncommon

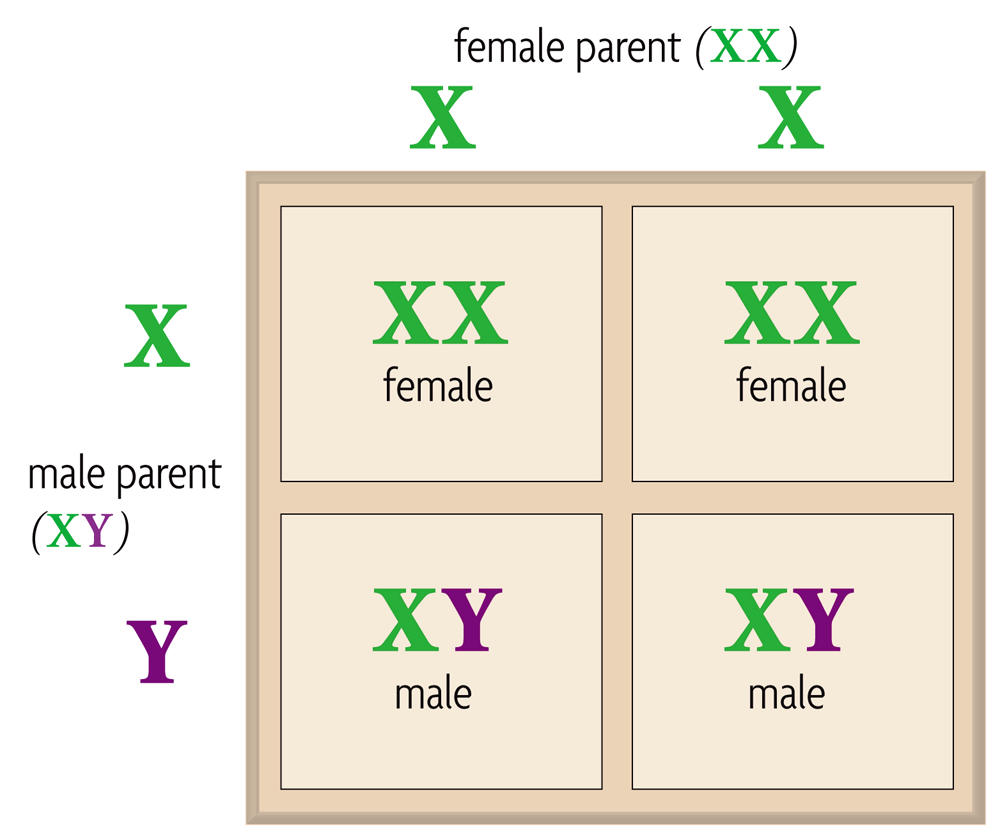
**Why do you think Disorders caused by dominant alleles are uncommon?**

***Answer on your EXIT TICKET***

Males and females can differ in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* Genes on \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ genes
  + Y chromosome gene in mammals are responsible for \_\_\_\_\_\_\_ characteristics

Sex-linked Traits continued



Autosomal vs Sex-linked Disorders

Autosomal Sex-Linked (X-linked)

* + X chromosomes genes in mammals affect \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ traits
* Male mammals have an \_\_\_\_\_\_\_\_\_\_\_ genotype
  + \_\_\_\_\_\_\_\_\_\_ of a male’s sex-linked genes are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Males have \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ copies of sex-linked genes.
* Female mammals have an \_\_\_\_\_\_\_\_ genotype
  + Expression of sex-linked genes is similar to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ genes in females
  + X chromosome \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ randomly “\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_” one X chromosomes.

**Why do you think male Calico cats are rarely found?**

***Answer on your EXIT TICKET***