

Name \_\_\_\_\_

Period \_\_\_\_\_ Date \_\_\_\_\_

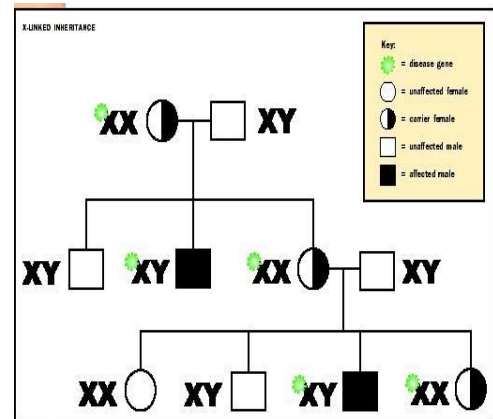
# Pedigree Notes

## Pedigrees

A **pedigree** is...

On a pedigree:

- Squares = \_\_\_\_\_
- Circles = \_\_\_\_\_
- Filled in shape? \_\_\_\_\_
- Half filled in shape? \_\_\_\_\_



## Types of Inheritance

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

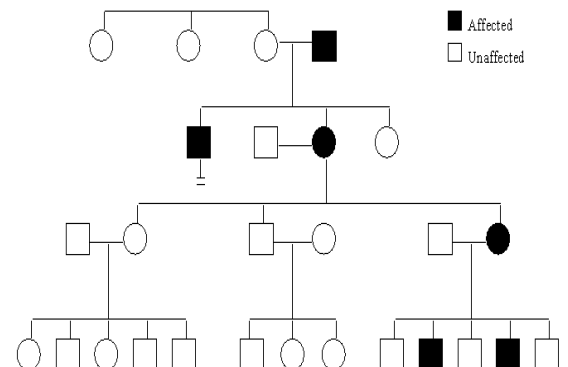
## Autosomal Dominant Inheritance

Autosomal = NOT on the \_\_\_\_\_

A single \_\_\_\_\_ of an \_\_\_\_\_ is enough to

cause \_\_\_\_\_ of a \_\_\_\_\_

### Autosomal Dominant



## Rules for Autosomal Dominant Inheritance

1. Every \_\_\_\_\_ person should have at least \_\_\_\_\_ affected \_\_\_\_\_
2. \_\_\_\_\_ and \_\_\_\_\_ should be \_\_\_\_\_ often affected
3. An \_\_\_\_\_ person has at least a \_\_\_\_\_ chance \_\_\_\_\_ the \_\_\_\_\_ allele to each \_\_\_\_\_

## Examples of Autosomal Dominant Traits

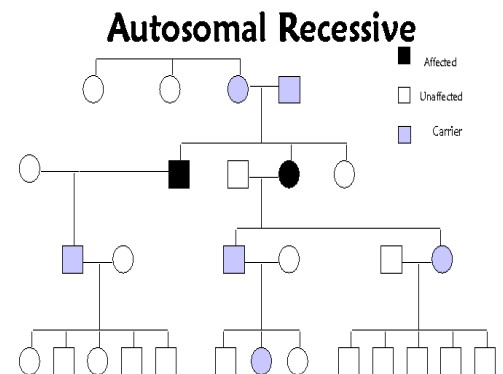
- \_\_\_\_\_ (caused by a \_\_\_\_\_) causes a person to \_\_\_\_\_ very \_\_\_\_\_ and \_\_\_\_\_ before they can \_\_\_\_\_
- \_\_\_\_\_: the \_\_\_\_\_ system begins to \_\_\_\_\_ around the age of \_\_\_\_\_

## Autosomal Recessive Inheritance

Autosomal recessive: \_\_\_\_\_ alleles result in a \_\_\_\_\_ being \_\_\_\_\_

## Rules for Autosomal Recessive Inheritance

1. An \_\_\_\_\_ person may \_\_\_\_\_ have \_\_\_\_\_ parents
  - Parents would be \_\_\_\_\_ of the \_\_\_\_\_
2. Affects both \_\_\_\_\_
3. Can \_\_\_\_\_ to \_\_\_\_\_ generations
4. \_\_\_\_\_ parents will have \_\_\_\_\_ children \_\_\_\_\_ of the time



## Examples of Autosomal Recessive Traits

- \_\_\_\_\_ is a condition which involves the \_\_\_\_\_ of \_\_\_\_\_ in the \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_

- \_\_\_\_\_ is a genetic \_\_\_\_\_ in which there is a \_\_\_\_\_ of \_\_\_\_\_ deposits in the \_\_\_\_\_ which eventually proves to be \_\_\_\_\_

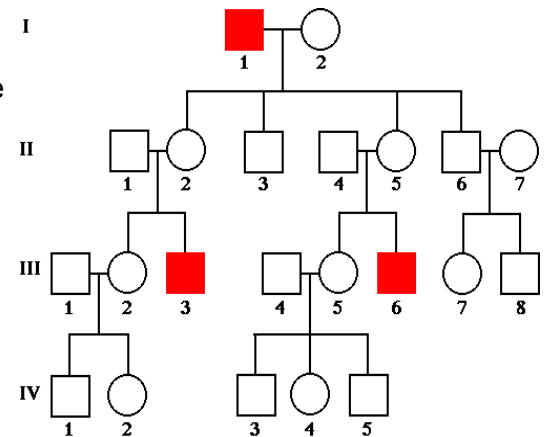
## Codominant Inheritance Example: Sickle Cell Anemia

**Sickle cell anemia** is a \_\_\_\_\_ disorder in which there is a \_\_\_\_\_ in the \_\_\_\_\_, an important \_\_\_\_\_ in \_\_\_\_\_

- An individual \_\_\_\_\_ for sickle cells suffers from \_\_\_\_\_ to important \_\_\_\_\_, \_\_\_\_\_, and usually \_\_\_\_\_ prematurely
- An individual \_\_\_\_\_ for \_\_\_\_\_ and \_\_\_\_\_ cells does not \_\_\_\_\_ from the full \_\_\_\_\_, but some \_\_\_\_\_ cells still have defective \_\_\_\_\_
- In certain areas of the world, being \_\_\_\_\_ for \_\_\_\_\_ cells has an \_\_\_\_\_
  - \_\_\_\_\_ is caused by a \_\_\_\_\_ that prefers “\_\_\_\_\_” blood cells
  - If some of the \_\_\_\_\_ cells are \_\_\_\_\_, that person is less likely to become a \_\_\_\_\_
  - This is called \_\_\_\_\_

## X-Linked Recessive Inheritance

In **X-linked recessive inheritance**, a \_\_\_\_\_ allele on the \_\_\_\_\_ can lead to a \_\_\_\_\_, \_\_\_\_\_, or \_\_\_\_\_



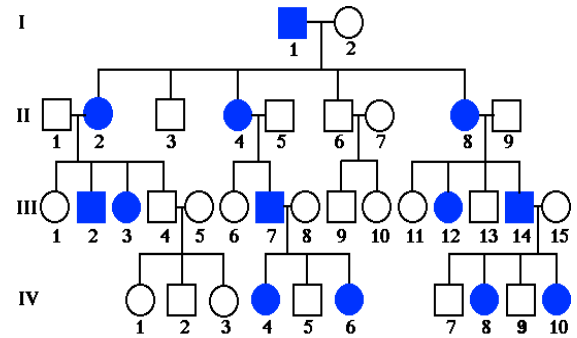
Pedigree 8. X-linked recessive inheritance.

## Rules for X-Linked Recessive Inheritance

- \_\_\_\_\_ are more \_\_\_\_\_ than \_\_\_\_\_ ( \_\_\_\_\_ ratio)
- Affected \_\_\_\_\_ will transmit the \_\_\_\_\_ to all \_\_\_\_\_, but not to \_\_\_\_\_
- Homozygous \_\_\_\_\_ can arise only from mating in which the \_\_\_\_\_ is \_\_\_\_\_ and the \_\_\_\_\_ is \_\_\_\_\_ or a \_\_\_\_\_

## X-Linked Dominant Inheritance

In **X-linked dominant inheritance**, a \_\_\_\_\_  
 \_\_\_\_\_ allele on the \_\_\_\_\_  
 \_\_\_\_\_ can lead to a \_\_\_\_\_,  
 \_\_\_\_\_, or \_\_\_\_\_



Pedigree 5. X-linked dominant inheritance.

## Rules for X-Linked Dominant Inheritance

- \_\_\_\_\_ as many \_\_\_\_\_ are affected as \_\_\_\_\_
- Usually \_\_\_\_\_ the children of an affected \_\_\_\_\_ will be \_\_\_\_\_, regardless of the \_\_\_\_\_
- \_\_\_\_\_ of the \_\_\_\_\_ of an affected \_\_\_\_\_ will be \_\_\_\_\_, but \_\_\_\_\_ of the \_\_\_\_\_

## Example for X-Linked Dominant Traits

\_\_\_\_\_ can lead to \_\_\_\_\_,  
 particularly in the \_\_\_\_\_ ( \_\_\_\_\_)