

Section 2-1

Human Inheritance



Human Inheritance

Pick a trait you inherited from a parent, such as widow's peak, smile dimples, or curly hair.

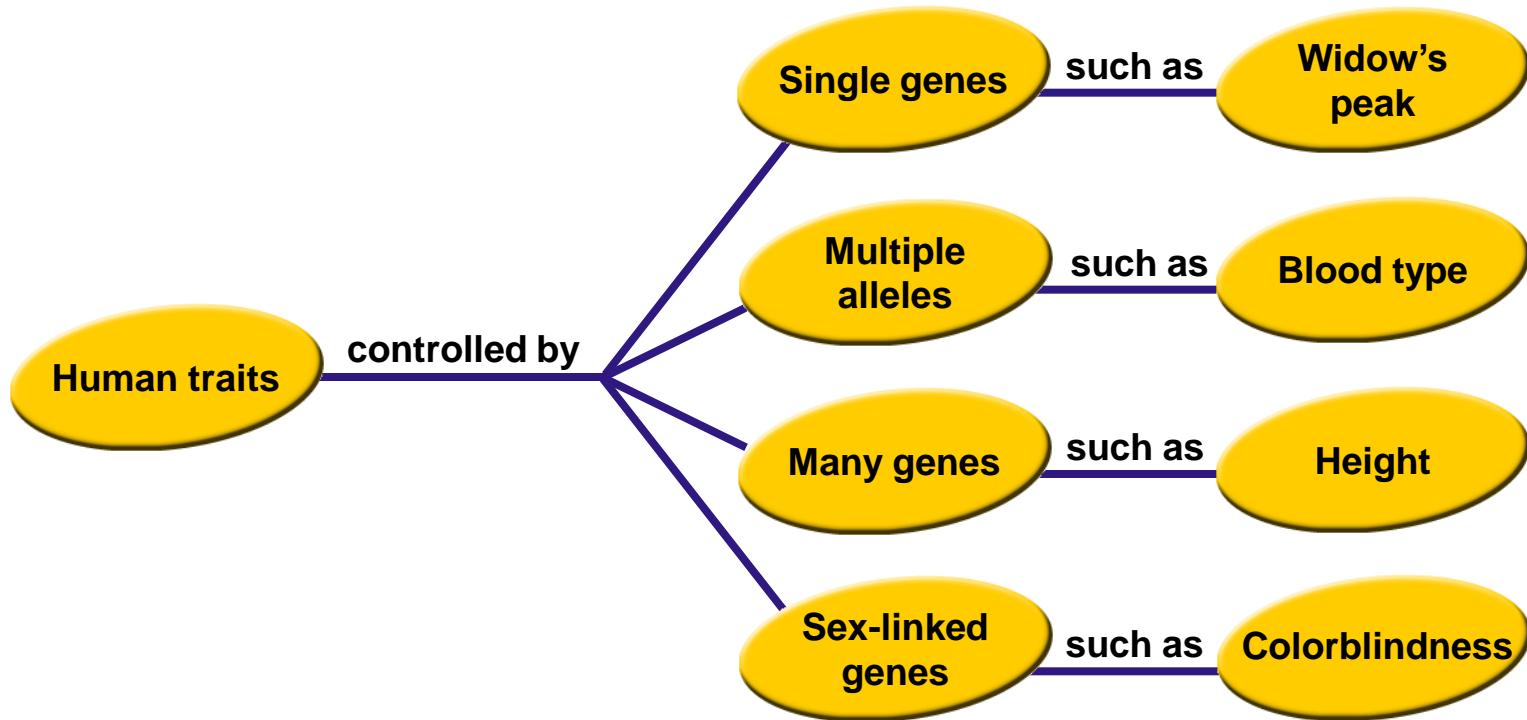
List the people in your family.

Circle the family members who have the trait you chose.

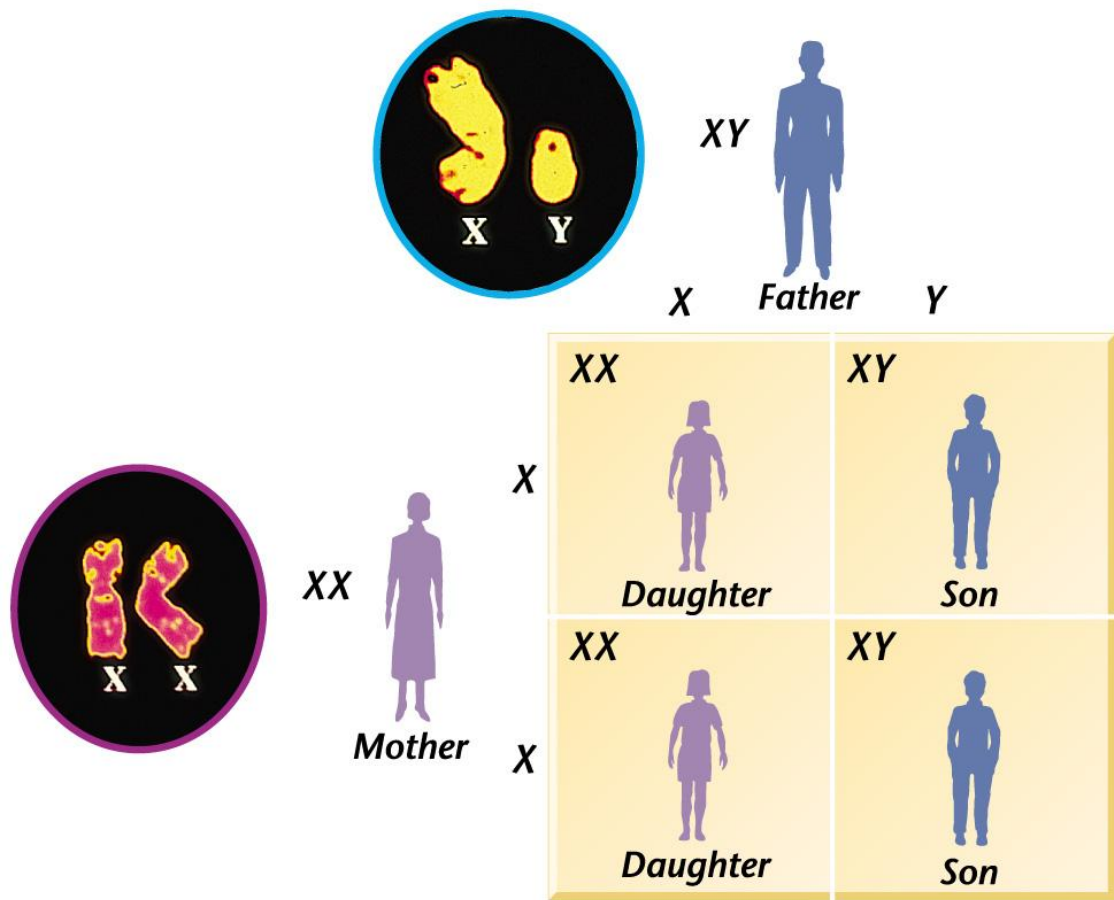
Identify any inheritance patterns you find.



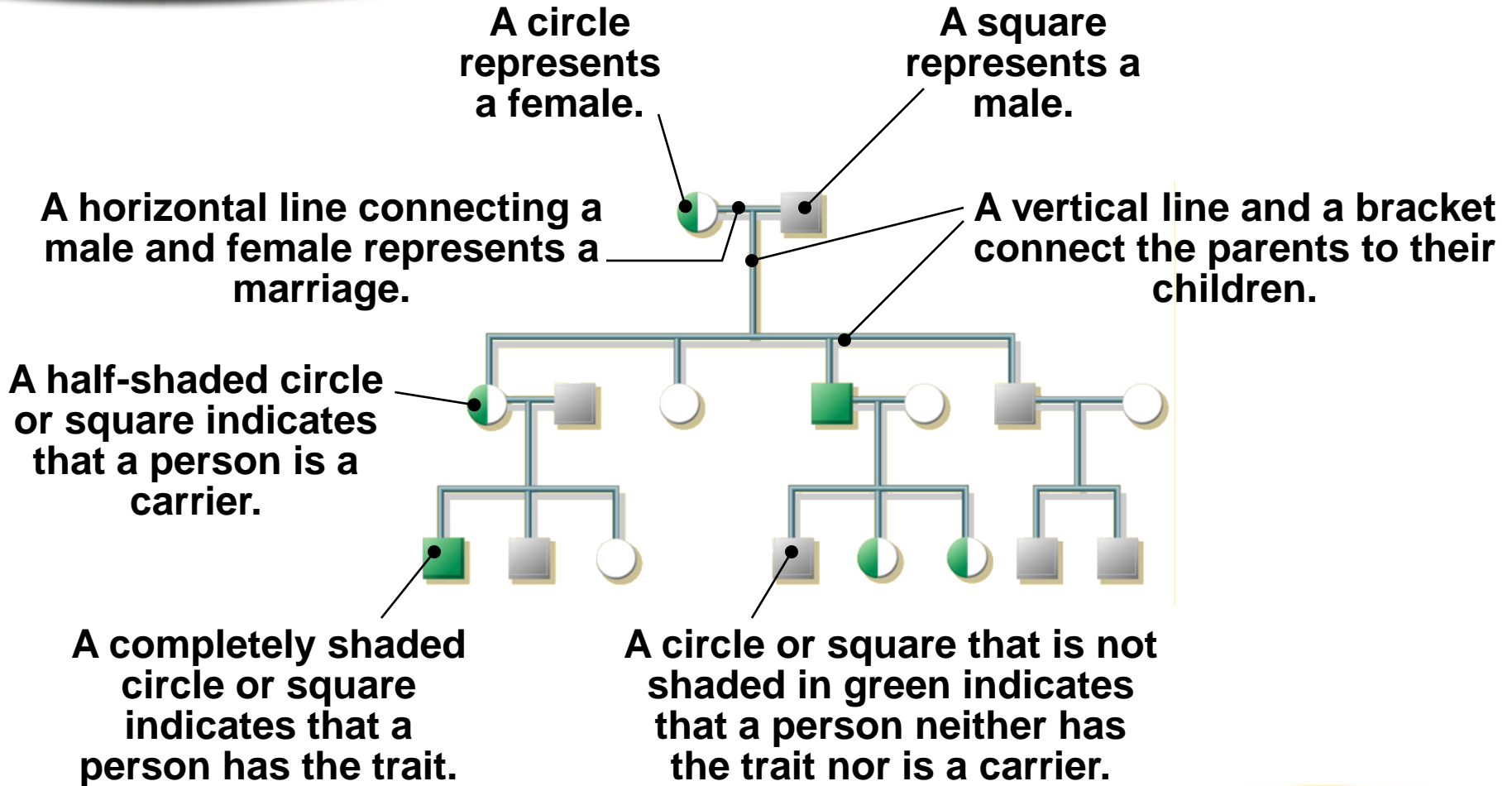
Human Inheritance



Human Inheritance



Human Inheritance



Section 2-2

Human Genetic Disorders



Genetic Disorder:

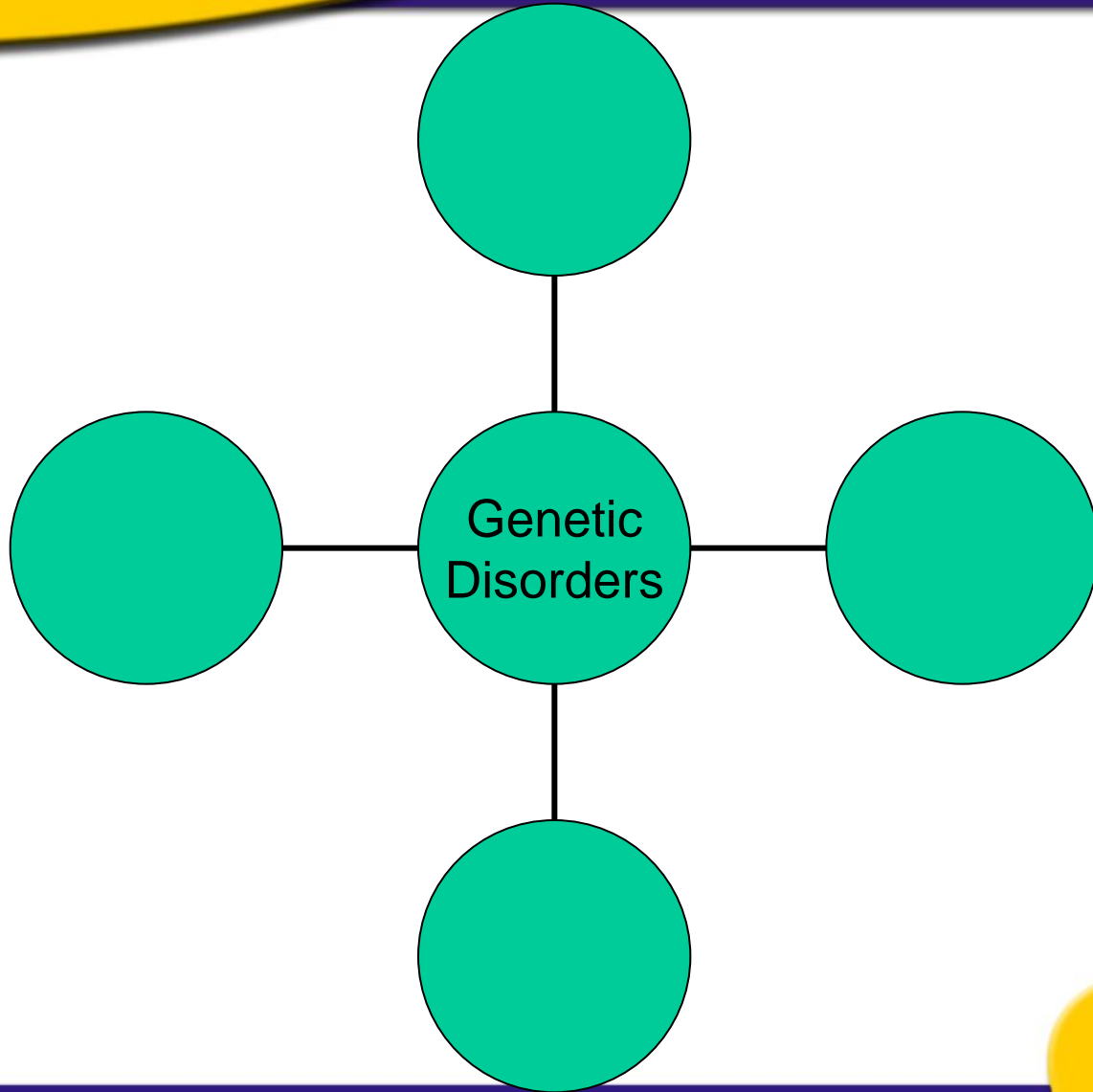
An abnormal condition that a person inherits through genes or chromosomes.

Caused by:

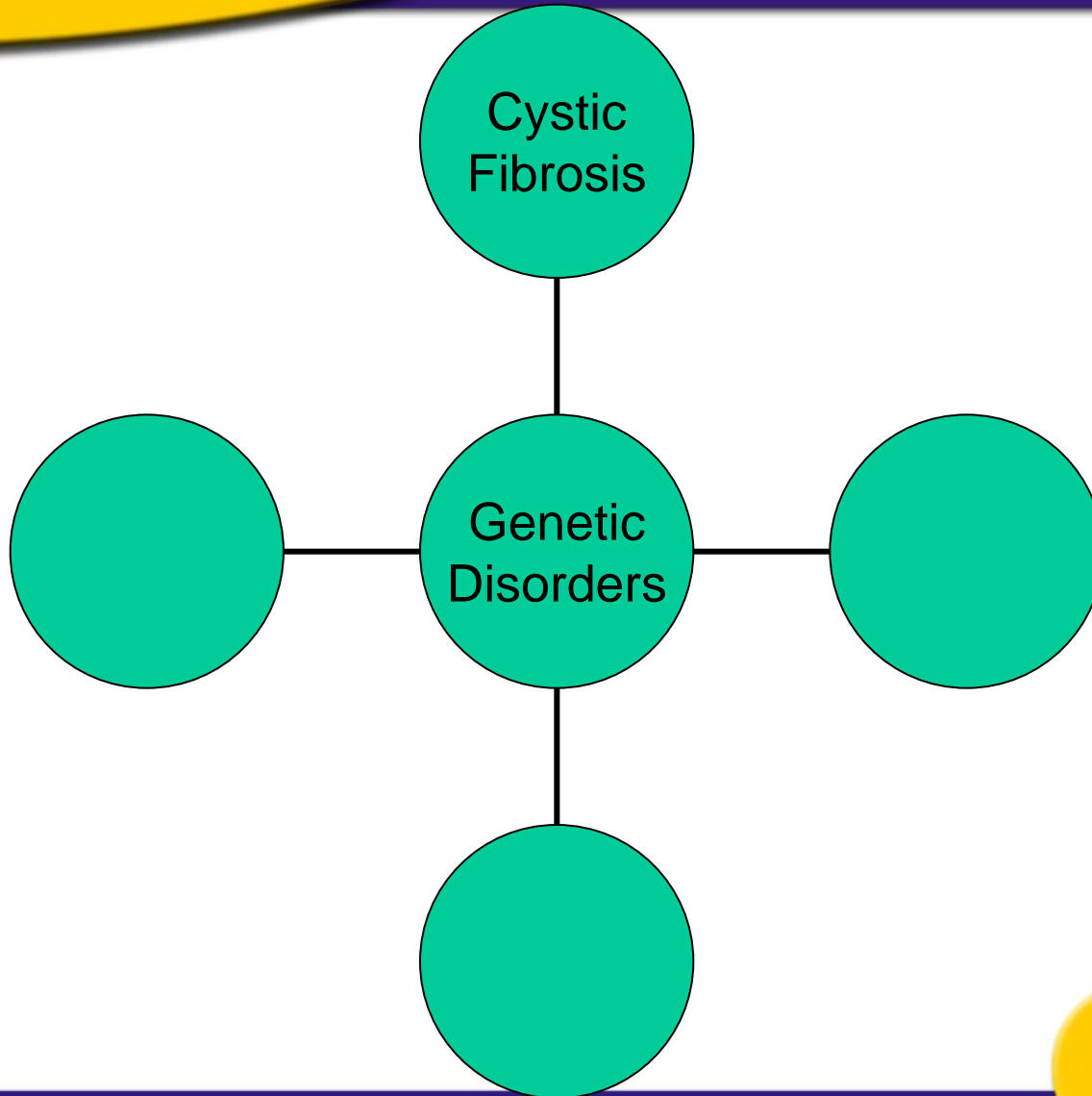
Mutations or changes in a person's DNA.

Mutation: any change in a gene or chromosome





Human Inheritance

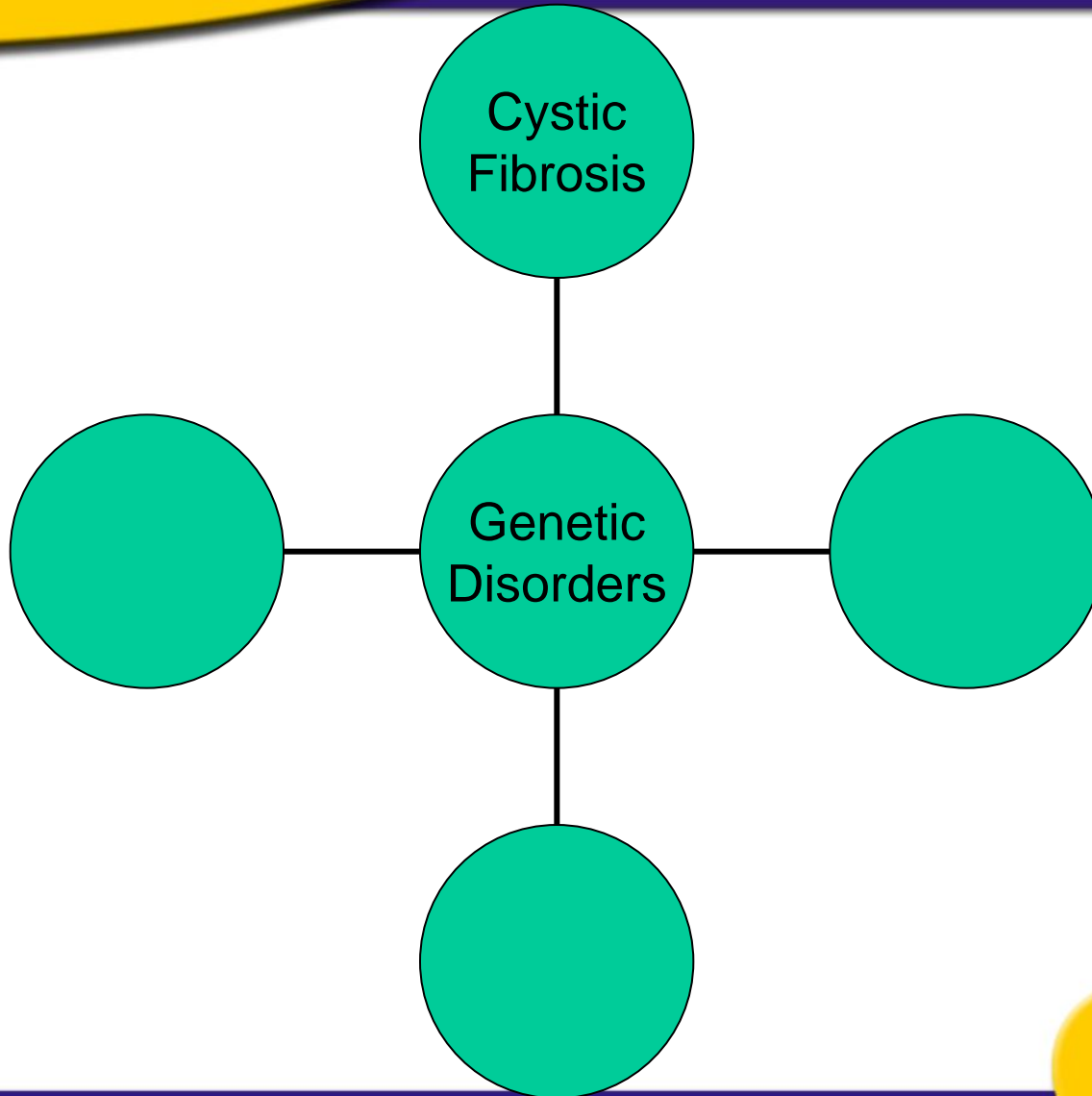


Cystic Fibrosis:

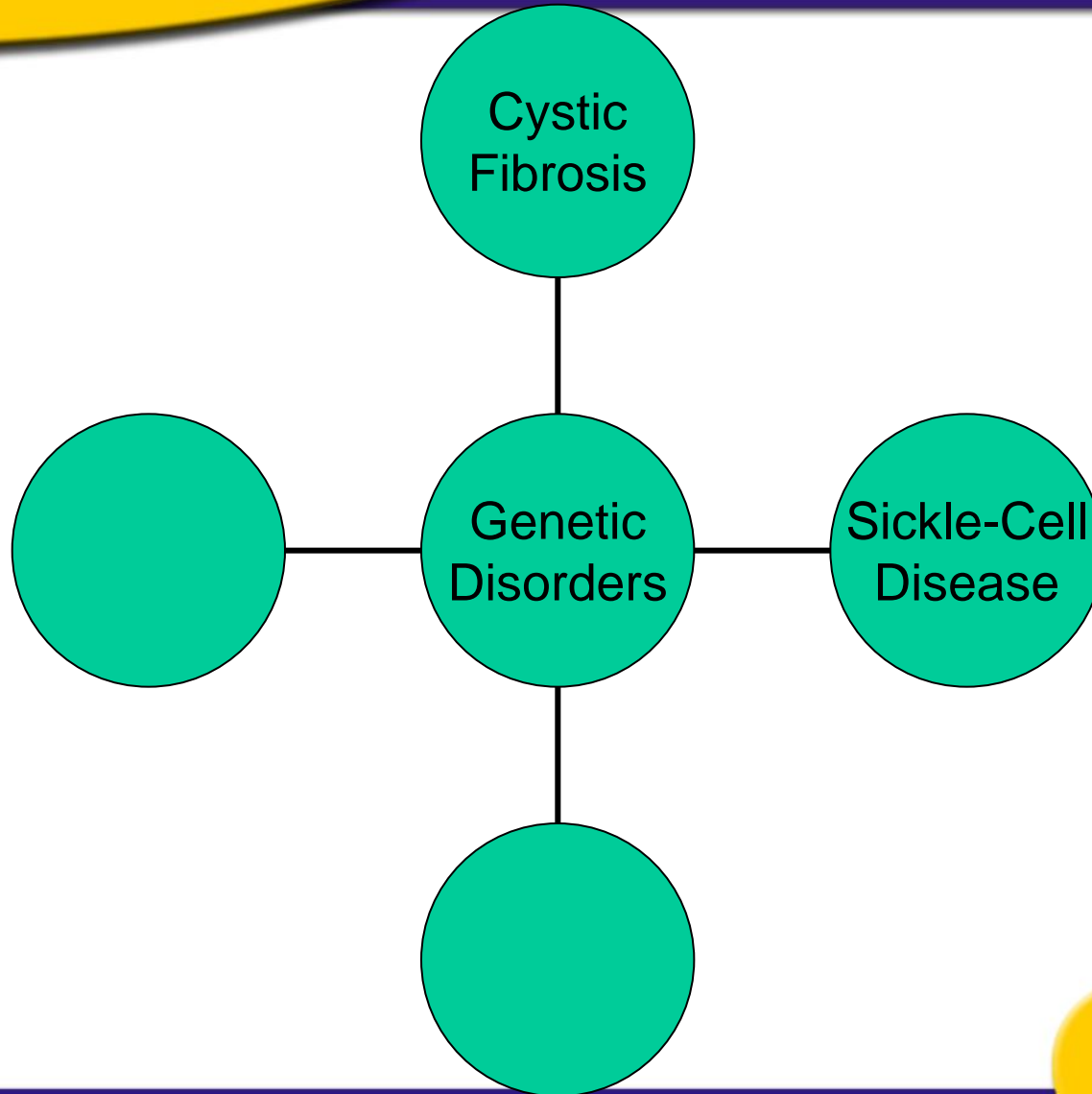
- **Body produces abnormally thick mucus in the lungs and intestines**
- **Mucus makes it hard to breathe, allows bacteria to grow and makes digestion difficult**
- **Mutation that causes cystic fibrosis is carried on a recessive allele**
- **No cure, but treatments are given for symptoms**



Human Inheritance



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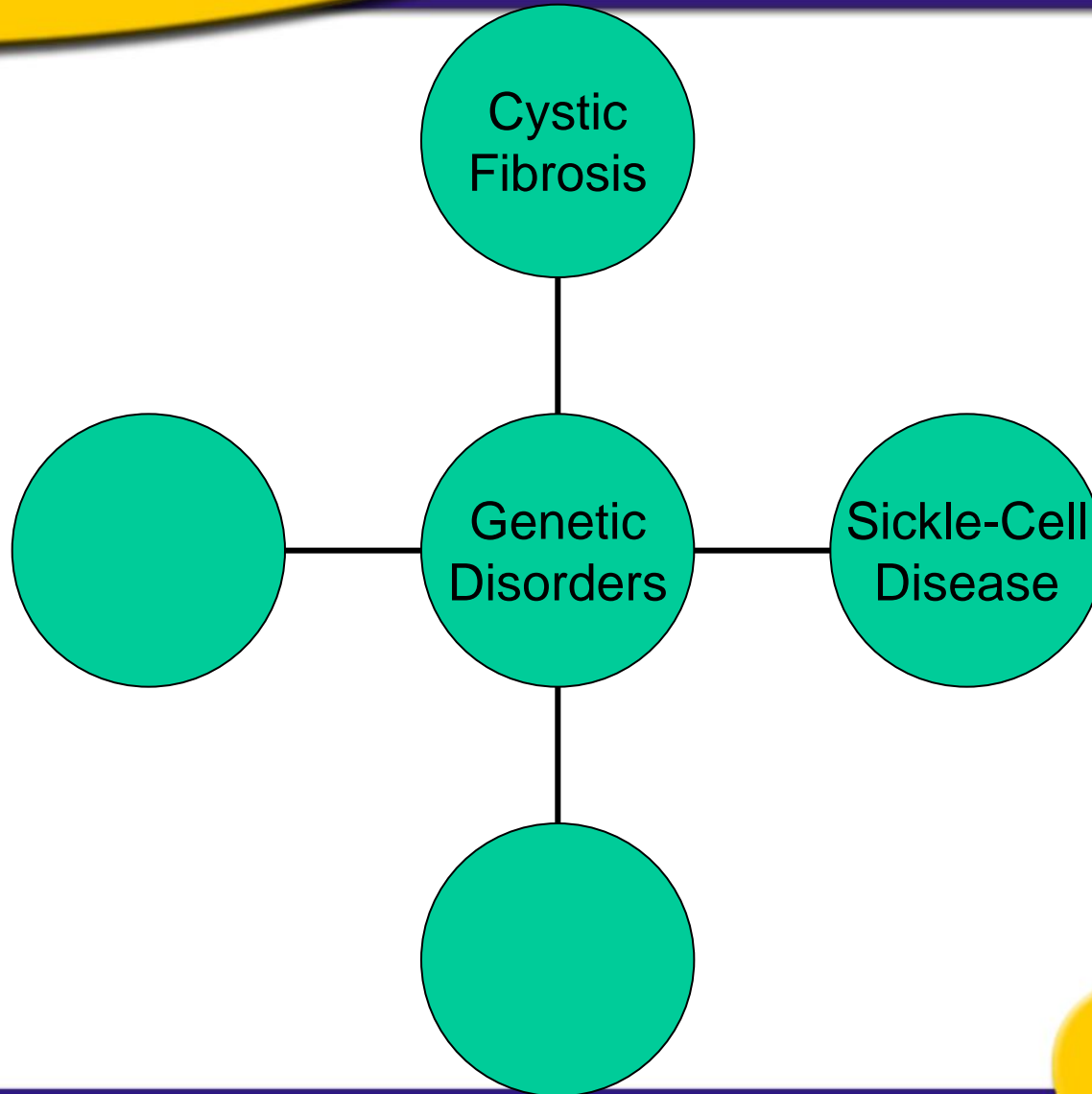


Sickle-Cell Disease:

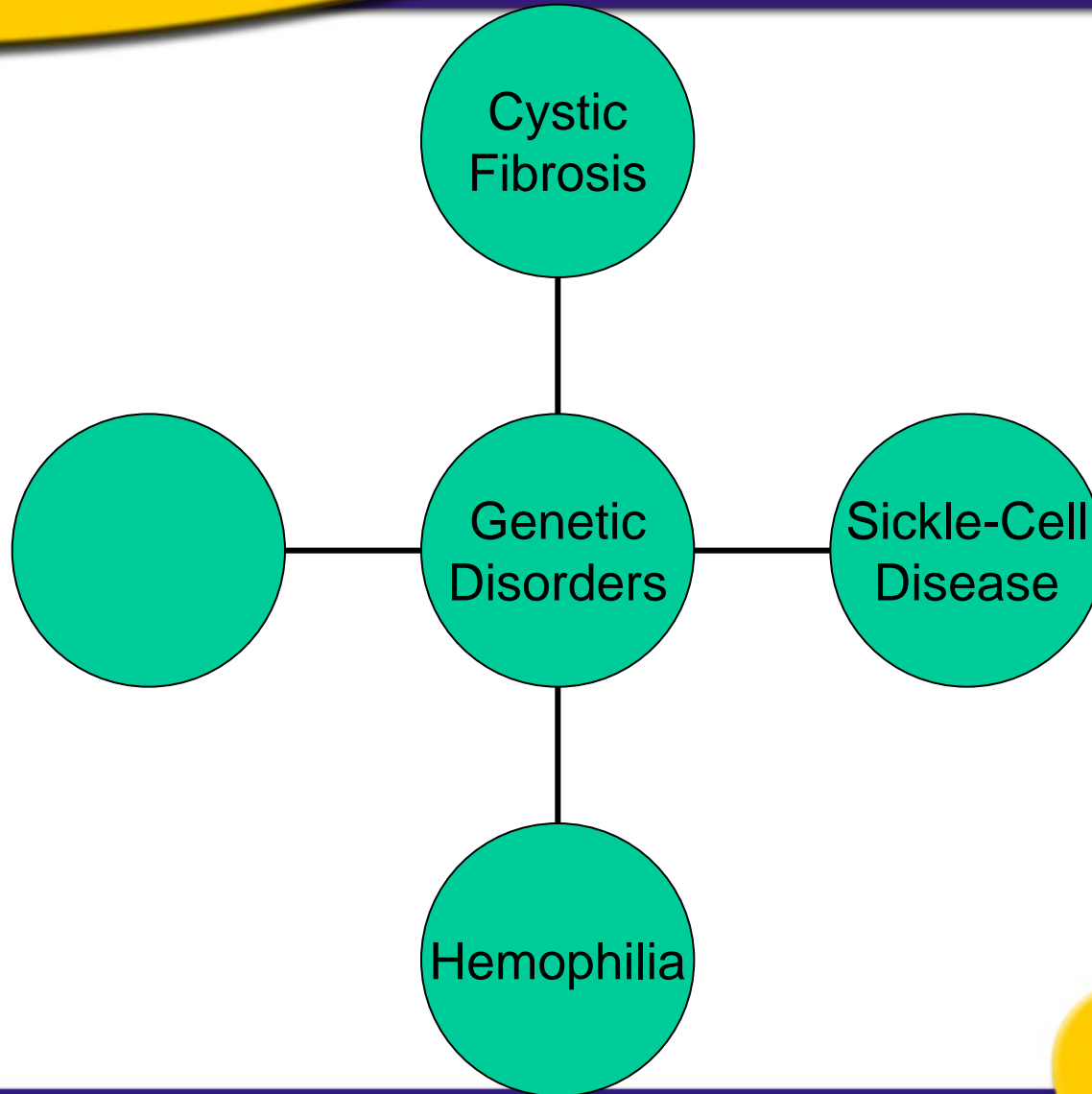
- Genetic disorder that affects the production of hemoglobin
- Makes the red blood cells sickle shaped
- Blood can't carry as much oxygen
- The sickle-cell trait is codominant with the normal trait
- No cure, but treatments are given for symptoms



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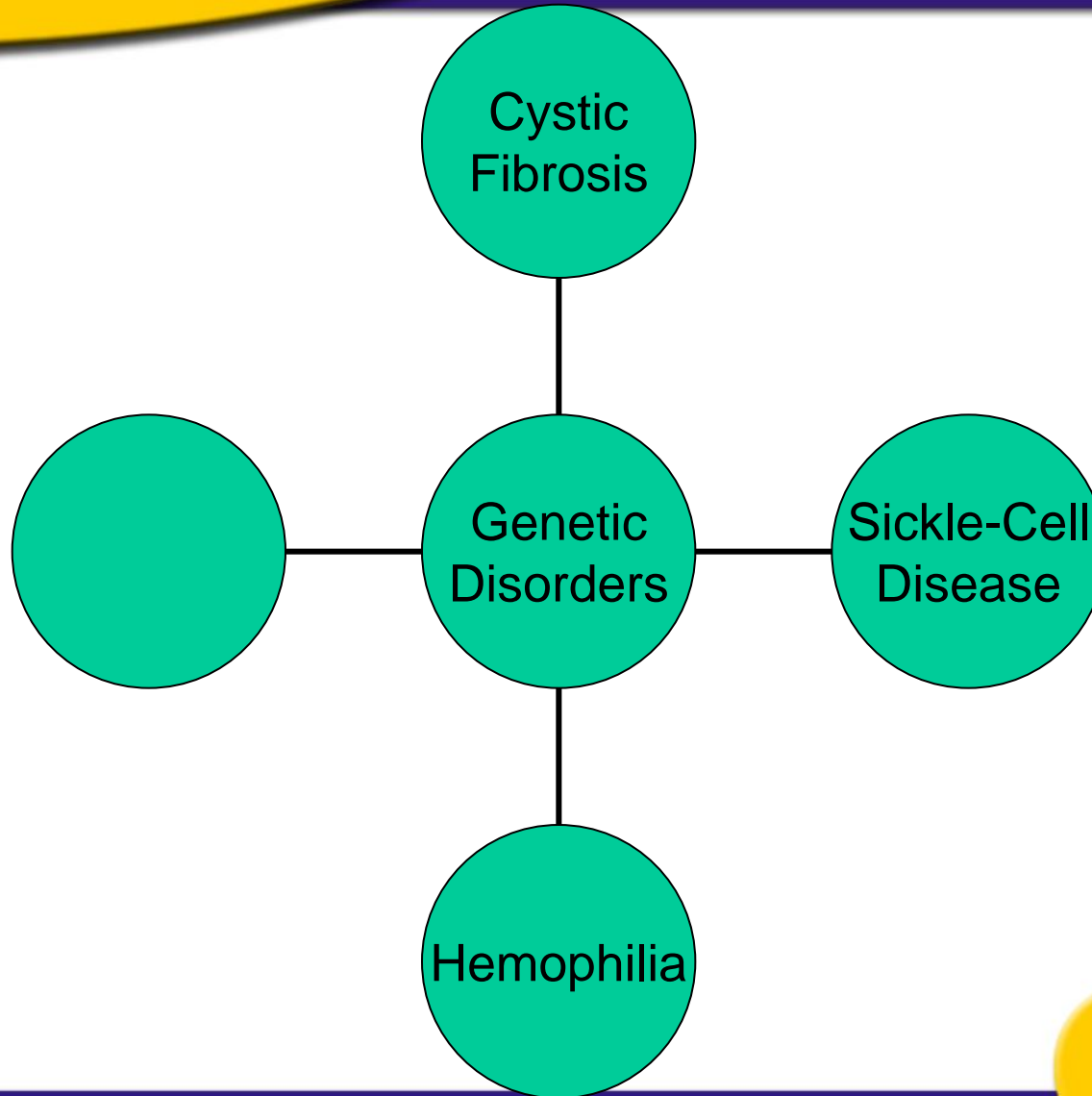


Hemophilia:

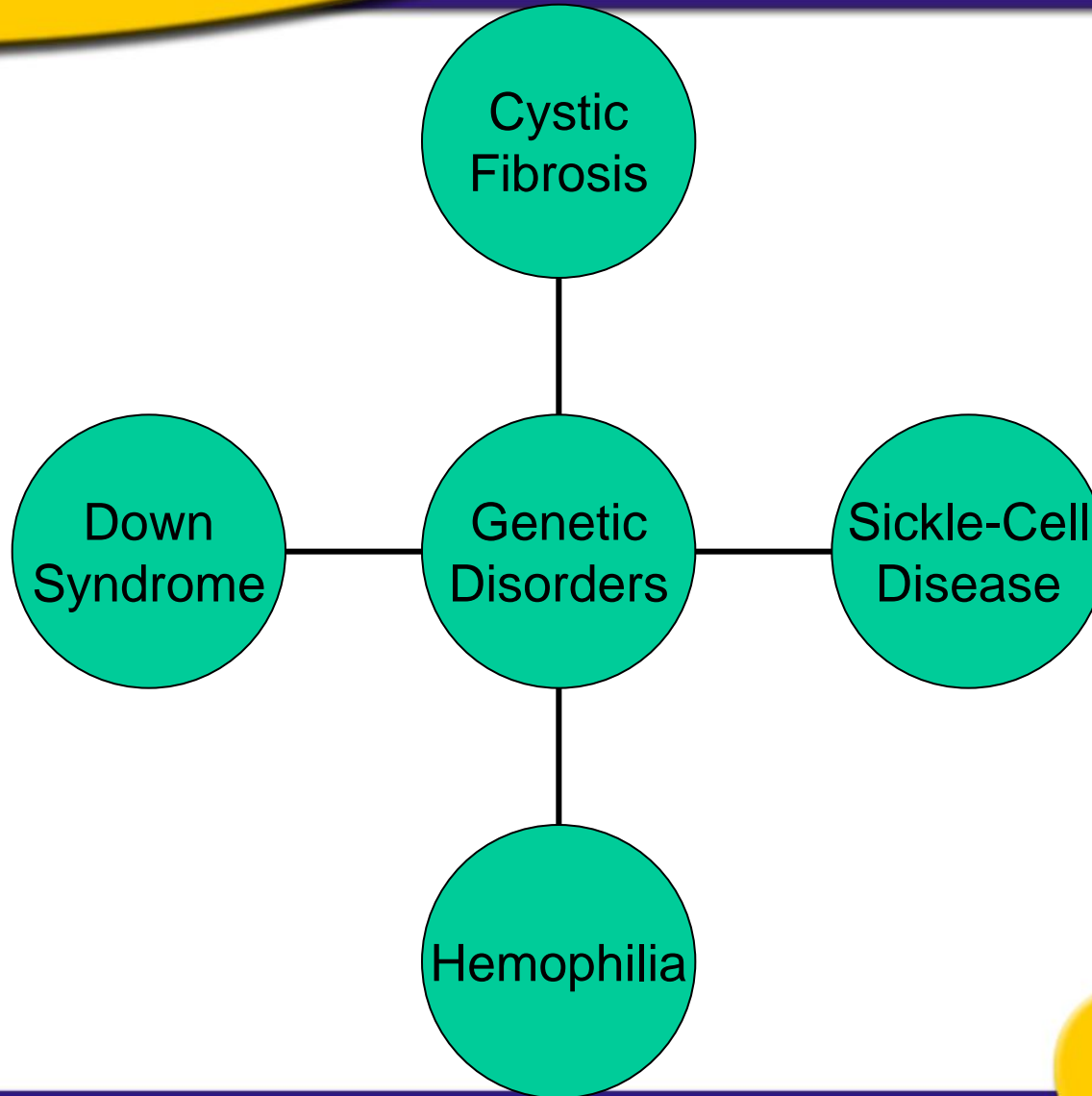
- **Genetic disorder in which a persons blood clots slowly or not at all**
- **One of the proteins for clotting is not produced**
- **Sex-linked – caused by a recessive allele on the X chromosome**
- **No cure, but treatments are given for symptoms**



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Down Syndrome:

- **Genetic disorder in which a person has an extra copy of chromosome #21**
- **Caused when chromosomes fail to separate properly during meiosis**
- **People with Down syndrome have some degree of mental retardation**
- **Heart problems associated with this disorder can be treated**

