



**The Cards You Have Been
Dealt**

+ Introduction

- Ben is a Jewish male. Ben has a genetic disposition for Tay-Sachs disease. Tay-Sachs disease causes deterioration of the brain and nervous system.
- Carol is an African-American. As an infant Carol was tested for Sickle-Cell Anemia. It was determined that she is a “carrier” of the trait. Sickle-Cell Anemia causes severe pain, heart and kidney problems and early death.

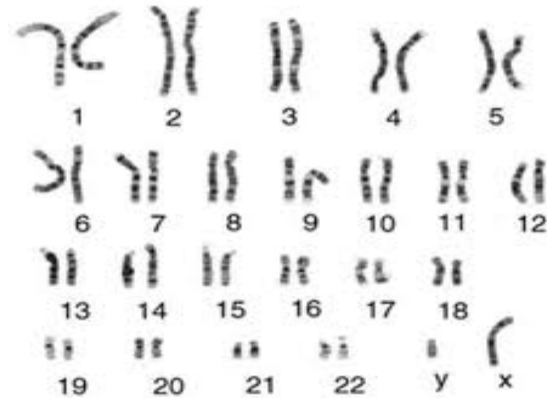
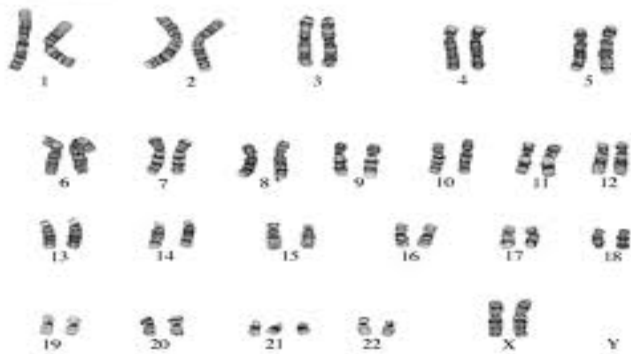




The experience of children and families

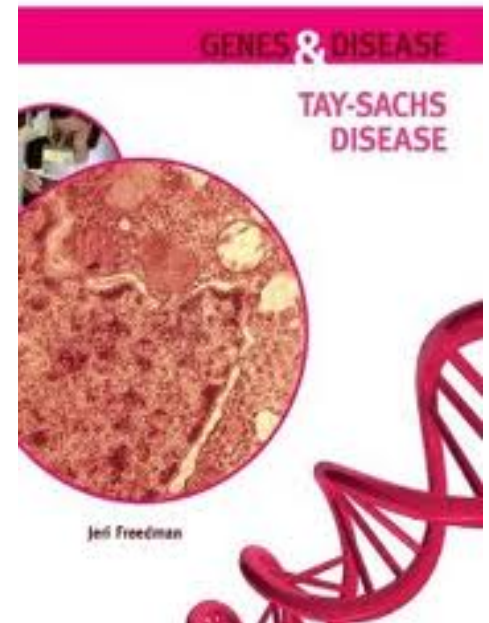
- Ben and Carol are family planning. To increase the chances of a healthy pregnancy, they make an appointment to see a doctor to discuss how they should precede

ZWK98011 KEY



+ Developmental Concepts

- Heritability-Sickle cell disease is inherited, which means it is passed from parent to child. To get sickle cell disease, a child has to inherit two sickle cell genes-one from each parent. When a child inherits the gene from just one parent, that child has sickle cell trait. Having this trait means that you do not have the disease but you are a carrier and could pass the gene on to your children.
- Tay-Sachs is a rare disease that is passed down through some families. The Tay-Sachs gene is most common in people of Ashkenazi Jewish descent person with Tay-Sachs has changed (mutated) genes





Prior to Conception- Protective Factors



- The parents should meet with their family doctor and talk about the things that they can do to have a healthy child together.
 - Genetic testing
 - Vitamins
 - Ovulation schedule



+ Father's Role

- The father is just as important as the mother.
- Some things that may lower a man's sperm count:
 - Bike riding
 - Having your laptop on your lap too long
 - Being overweight





The Experience of Children and Families



- What the child experiences
 - Go through shaping into human form.
 - On week 4, blastocyst implants into the uterus
 - Nutrients and oxygen are conveyed through umbilical cord to the embryo.
- What the mother experiences
 - Most of them still don't realize that they are pregnant.
 - Starting to develop physical signs or pregnancy.

+ Developmental Concepts (3-8 weeks)

- In this period of time, the fetus has grown and made its transition to an embryo.
- This is the time where the embryo is going through rapid growth to gain a human-like shape.
 - Major organs and body parts like brain, arms, legs, and lungs are forming.
 - The circulation of blood starts early in this time period.
- Very vulnerable to environmental hazards.

+ Developmental Concepts (3-8 weeks)

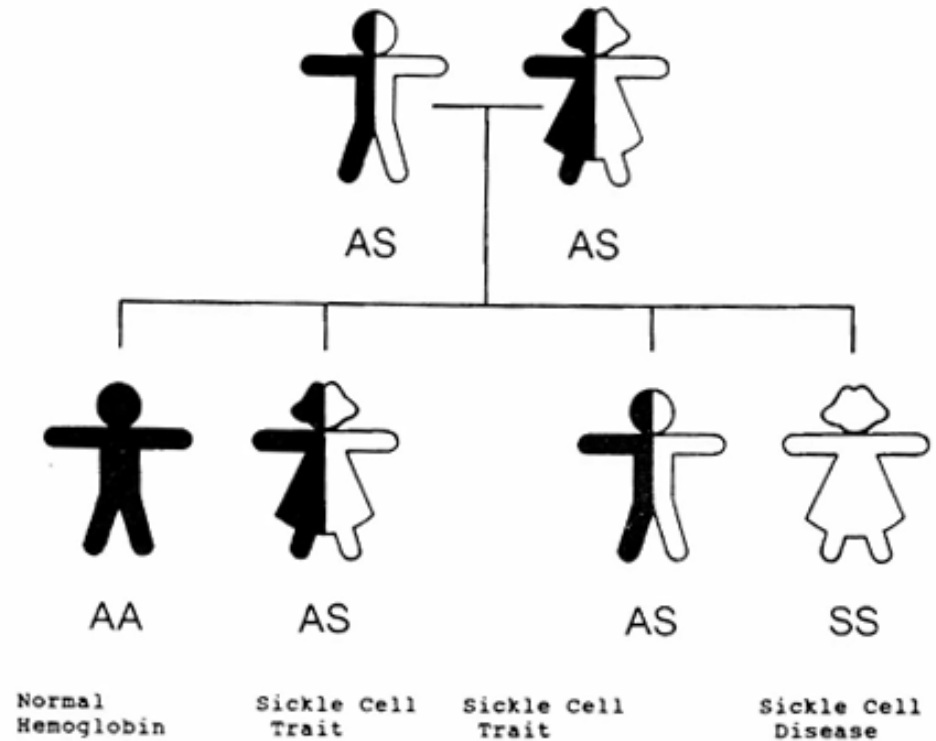
- Organogenesis- the process or formation of the organs and organ systems during the development of the embryo.
- Teratogens- These are any viruses, drugs, or any other agent that is present that can harm the embryo.
 - Examples- Alcohol, tobacco, drugs



+ Protective Factors (3-8 weeks)

■ Sickle Cell

- Healthy diet
- Preventing dehydration
- Prenatal vitamins (Folic acid)
- Excessive physical stress



+ Protective Factors (3-8 weeks)

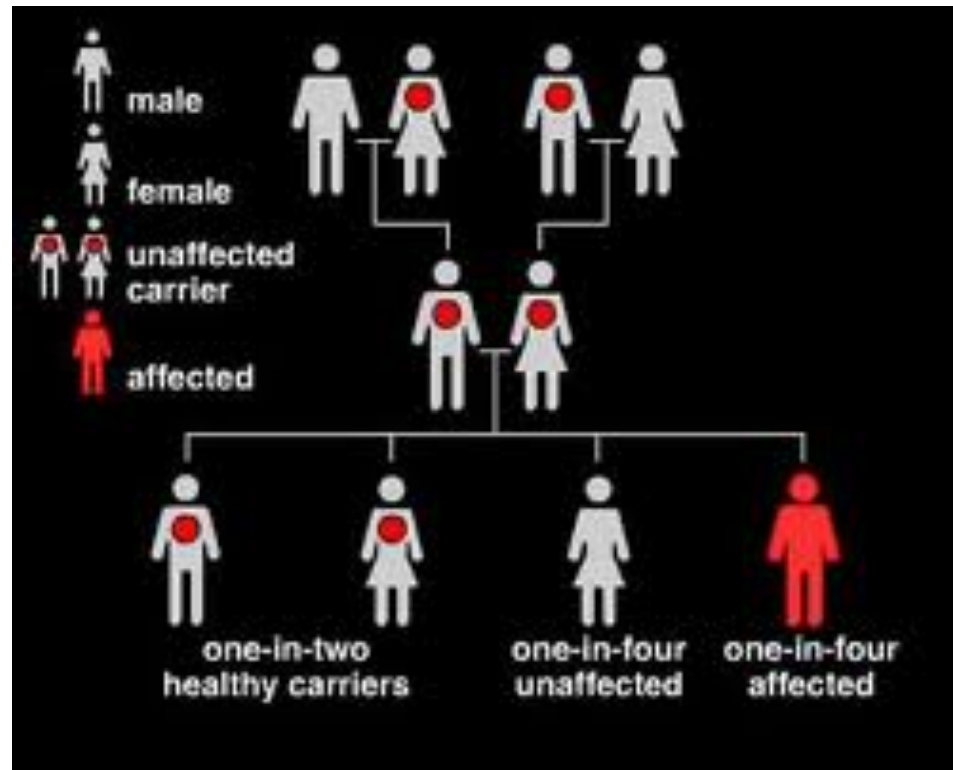
■ Tay-Sachs

- Respiratory care
- Physical Therapy

■ Healthy Diet

■ NO

- Drugs
- Alcohol
- Smoking





Getting ready for childbirth



- To be prepared as possible (ease their stress)
 - Pick a doctor and/or midwife to deliver the child
 - Decide where and how
 - A birthing plan never hurt
 - Pick a birthing method
 - Take some birthing classes
 - Decide what you feel is right for you and the child, it's you and the child's health and safety you're thinking about
 - DON'T PANIC!!!!

+ **Developmental Concepts**
From 9 weeks after conception until birth



+ STRESS: Old wives' tale or actual risk? YES! Stress isn't good for pregnant women and the baby.

- Previous stress + Stress of baby inheriting = NO GOOD!
 - Increased risk of pre-term labor and low birth weight.
- At each stage of development, the baby uses “cues” from its environment to decide how best to “create” itself using its genes. Fetus respond to stimuli in the womb.
 - Ex: Mother becomes stressed, causing biological changes and elevation of stress hormones.
 - *The fetus “builds” or “creates” itself permanently to deal with this kind of high stress environment.
- Greater risk for stress related behaviors



+ Delivering Pre-Term (Before 37 weeks)

- 1 in 10 women pre-term because of high levels of stress and anxiety
- Babies born pre-term are more easily affected to have complications later on in life.
 - Developmental delays
 - Chronic lung disease
 - Learning disorders
 - Infant mortality
- More likely to develop chronic health problems as adults
 - Heart disease
 - High blood pressure
 - Diabetes



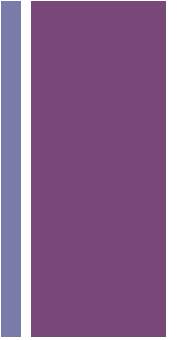
+ “Mom’s Stressing Me Out!”

- Mother experiences anxiety, body produces chemicals that affect the baby
 - Constrict blood vessels
 - Reduce oxygen to the uterus
 - Increased CRH – regulates the duration of pregnancy and fetal maturation
- Stress in the womb can affect the baby’s neurobehavioral development
 - Relationship between nervous system and behavior.
 - Stress related behaviors



+ Family responses

- Excited
- Nervous
- Anxious
- Don't really know what to expect
- Ready
- Kind of in a daze (too excited)
- Whatever they feel, they know they need to keep calm for their offspring.





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