

BIOS256

Espinoza

Week 7

Lab

Findings:

After a cursory examination, Tyler appears happy, healthy, and has good growth for his developmental stage. A sweat chloride test was conducted and found to have a chloride level of 69 mmol/L, indicating cystic fibrosis is likely. Further genetic screening determined that Tyler does, in fact, have cystic fibrosis.

Questions:

1. Define genotype.

An organism's complete set of genetic material which creates their complete set of DNA.

2. Define phenotype.

An organism's observable characteristics.

3. How is cystic fibrosis inherited?

The biological parents must both have the mutated CFTR gene in order for the offspring to have Cystic Fibrosis.

4. Describe three problems that an individual with cystic fibrosis may experience.

People with Cystic Fibrosis often experience frequent lung infections (pneumonia or bronchitis), failure to thrive, and difficulty breathing.

5. What is the probability that Tyler would pass on the cystic fibrosis gene to his potential offspring?