

Heart Disease Pedigree: Analysis Questions

Glue these questions to notebook page 49. Answer each question using COMPLETE SENTENCES and evidence from your pedigrees. Be sure to correctly number each question.



1. Looking just at the GENETIC FACTORS pedigree: The grandfather in this family was a “high risk” individual (genetically, high risk is 3 or more “at-risk” genes). How many of his children were either medium (2 “at-risk” genes) or high risk individuals? How many of his grandchildren were either medium or high risk individuals?
2. Looking just at the GENETIC FACTORS pedigree: Did the number of “medium risk” and “high risk” individuals decrease or increase over later generations. Why do you think that happened?
3. Looking at the TOTAL RISK pedigree: What seems to have more of an influence on the risk of developing heart disease – genetics or lifestyle & environment? Use evidence from the pedigrees to support your answer.
4. If a parent is diagnosed with heart disease, does that mean the children will have it also? Defend your answer. (Your answer should include the word “risk.”)
5. What would you tell a person with four “at risk” genes, who is afraid of developing heart disease?
6. Make a list of things you and your family can do to reduce the risk of developing heart disease.