



1. What is the genotype of I-2? Explain your answer.

if X linked, then XH Xh

if recessive then Tt

if a dominant disease then hh

2. What are the genotypes of II-1, II-2, II-3, and II-4? Explain your answer.

Ee Ee Ee Ee

Each of these offspring received the "E" from their mother and the "e" from their father

3. What are the possible genotypes for II-6? Explain your answer.

EE or Ee

The fact that the child III - 1 does not have the disease means that there is at least one "E" that came from the mother so she is "E?" and could be Homozygous dominant or Heterozygous.

4. If II-6 is EE, what is the genotype of her child with II-5?

Ee because the dad can only give "e"

5. What sex is the oldest child in generation II?

female

6. Who is the youngest child in generation II?

II-5, male

7. Who is the daughter-in-law in this family?

II-6

8. How many generations are represented in this pedigree?

3

4. Complete the pedigree in the figure below. In the spaces below each symbol, write as much of the genotype of each individual as can be determined from the information provided. Assume the shaded symbols represent the homozygous recessive genotype rr.

