Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_\_

Genetic Mutations and Genetic Disorders

1. What is the difference between an inherited genetic disorder and an acquired genetic disorder? Go to <http://ghr.nlm.nih.gov/handbook/mutationsanddisorders/genemutation> to find out!

2. Research the following genetic disorders and complete the table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| How many people have the disorder? | Inherited or Acquired | Symptoms | What causes the disorder? | Is it passed on to offspring? Dominant or Recessive? |
| **Down Syndrome** |  |  |  |  |
| **Cystic Fibrosis** |  |  |  |  |
| **Huntington’s Disease** |  |  |  |  |

3. What are treatment options for the three disorders? What can be done to make their lives as normal as possible?

Down Syndrome –

Cystic fibrosis –

Huntington’s –

3. Explain why the following statement isn’t entirely true: One out of every two offspring that result from a cross between parents with the genotypes Hh and hh definitely will have Hungtington’s disease.

4. Two healthy individuals marry and have three children. The first two are healthy. But the third is born with cystic fibrosis, meaning that she is homozygous recessive for the cystic fibrosis gene. What do you know about the genotypes of the other people in the family?

5. Why do doctors ask for your family medical history when you first visit? How can this help them make decisions regarding your health and future?