**Case Study 1:** *(Muscular Dystrophy)*

John appears to be a healthy baby boy. He grows bigger and bigger like all of the other little boys around him, but when it came time for John to start walking his mom noticed something unusual. John started falling down more and more often, unable to hold himself up. He had enlarged calves as well. The doctors had diagnosed him with Muscular Dystrophy. Over time his legs and arms became weaker and weaker, by the age of 12 John was in a wheelchair.

Answer the following questions on your own sheet of paper:

You are John’s emergency room doctor.

1. Given his symptoms and current condition, what do you think happened to John inside his body?
2. What are all the parts of John’s body system that are affected?
3. What will you do to help John or treat his condition?
4. What do you think would happen to John if he went untreated?
5. What do you think is happening at the molecular level that is causing this disease?

