

Week 3 case study

BIOS 251

1. The normal function of lysosomes is to digest pathogens both inside and outside the cells using the digestive enzymes that it contains.
2. To be perfectly honest, I am not sure what the monomers of the Hexosaminidase A enzyme are. I struggle with the concept of monomers sometimes.
3. The plasma membrane of a cell is composed of carbohydrates, lipids, and proteins. It contains two phospholipid layers with cholesterol in between them with proteins and carbohydrates attached.
4. The non-membrane bound organelles in a cell are cytoskeleton, cell wall, centrosomes, and ribosomes. The membrane bound organelles in a cell are the lysosomes, mitochondria, endoplasmic reticulum, nucleus, and the Golgi complex.
5. If the parents of this 6 month old baby with Tay-Sachs have concerns about the child's development, I would answer "a." "Your child's development may be delayed, but interventions can help improve outcomes."

So, when I read the case study, I googled the disease Tay-Sachs to learn more about it. I read in my research that Tay-Sachs is fatal, there is no cure, and most children have a prognosis of 4-5 years. (Ramani & Sankaran, 2023). So while I would give information about interventional therapies available to help the child's development, I think that as a nurse, I would turn the conversation towards quality of life, quality time as a family, and creating a loving, therapeutic environment where they can create fond memories as a family.

Ramani P.K., Sankaran B.P., (2023, Jan, 25) *Tay-Sachs Disease*, StatPearls [Internet]
<https://www.ncbi.nlm.nih.gov/books/NBK564432/>