

Name _____

Nephrons: The Kidney's Filtering Units

Open-Ended Response Questions

1. Imagine a scenario where a person's nephrons are not functioning correctly, leading to poor filtration. How might this affect the composition of urine, and what potential health problems could arise as a result?

2. Think about a situation where a person is severely dehydrated, and their nephrons are actively reabsorbing water to conserve it. Describe the role of nephrons in this situation and how it contributes to maintaining the body's water balance.

3. Discuss the importance of nephrons in regulating electrolytes in the body. What could happen if nephrons fail to maintain the balance of electrolytes, and what potential health issues could arise?

4. Consider a scenario where the nephrons are unable to effectively excrete excess hydrogen ions, resulting in increased acidity in the blood. How might this affect a person's overall health, and what symptoms or complications could they experience as a result?

