

## Lewis Questions:

1. What is unique about the way Lewis antigens are formed on the red cell?
2. What is the purpose of the secretor gene and how does it differ from the H gene?
3. What does the Lewis gene (Le) code for?
4. How is the Le(a) antigen formed?
5. How is the Le(b) antigen formed?
6. If both enzymes (Secretor and Lewis) are present, which will usually act on the type 1 chain first?
7. If an individual inherits both the Lewis and Secretor genes, what will their Lewis phenotype be?
8. Is an Le(a-b+) individual truly Le(a-)? Why?
9. If an individual only inherits the Lewis gene, what will their Lewis phenotype be?
10. If an individual only inherits the Secretor gene, what will their Lewis phenotype be?
11. How does the Secretor gene effect ABO antigens in secretions?

**12. How does the Secretor gene effect the presence of Lewis antigens in secretions?**

**13. Is the Le(a+b-) phenotype considered to be a secretor or nonsecretor?**

**14. Is the Le(a-b+) phenotype considered to be a secretor or nonsecretor?**

**15. Is the Le(a-b-) phenotype considered to be a secretor or nonsecretor?**

**16. Describe the Lewis antigen development from birth to adulthood.**

**17. At what temperature do Lewis antibodies react best?**

**18. Are Lewis antibodies naturally occurring or immune antibodies?**

**19. Are Lewis antibodies usually IgM or IgG?**

**20. Is Lewis reactivity increased or decreased by enzymes?**

**21. Which phenotype is most likely to make anti-Le(a)?**

**22. Why is anti-Lea almost never seen in Le(a-b+) individuals?**

**23. Describe the difference in reactivity between anti-LebH and anti-LebL.**

24. Which blood types are most likely to form anti-LebH?
25. What happens to the mother's Lewis antigens during pregnancy?
26. Describe the neutralization technique.
27. Why are the Lewis antibodies not a concern in HDFN?
28. Why are the Lewis antibodies not a concern for TRXNs?
29. How is it possible for an individual to have the Le(a+b+) phenotype?
30. What ethnicity is most likely to have the Sew allele?
31. Which Lewis phenotype is most common among Caucasians and African Americans?
32. Which phenotype is much more likely to be seen in African Americans than in Caucasians?
33. What percentage of individuals are ABH secretors?
34. Individuals that have the Le(a-b+) phenotype are more susceptible to what illness?