

Nutrition / Chapter 8
Vitamins: Study Guide

1. What is a vitamin?
2. What is a pro-vitamin?
3. Do vitamins provide vitamins? Directly or indirectly?
4. What units of measurement are when working with vitamins?
5. What are three different roles of vitamins?
6. What is an antioxidant? Explain how vitamins protect cells.
7. How are vitamins classified?
8. Be able to identify all the vitamins by name / symbol and associate primary physiologic function.
9. What is the difference between enrichment and fortification?
10. Where are vitamins absorbed?
11. Are all vitamins likely to be toxic? Explain
12. What populations are most likely to be at risk with regard to vitamin deficiency? Why?
13. How do you maximize the vitamin content of foods?
14. Are vitamins equally distributed among the six food groups? What is the significance of this?
15. What are the two primary sources of Vitamin A?
16. What is the cause of night blindness?
17. What is keratin and how can Vitamin A deficiency change keratin production? How does this relate to xerophthalmia?
18. What is carotenemia?
19. What is rickets? What is “adult” rickets called?
20. What are the mechanisms that regulate calcium (three hormones / homeostasis)?
21. Why does RBC undergo hemolysis when there is a Vitamin E deficiency?
22. What is a coenzyme and which vitamins interact with coenzymes?
23. Both beriberi and Wernicke-Korsakoff Syndrome are caused by a vitamin deficiency. Given the function of the vitamin, why are the disease symptoms to be expected?
24. Riboflavin and niacin are both involved in the metabolism of macronutrients. Which vitamin will make your urine bright yellow?
25. What vitamin can be formed in the body from tyrtophan?
26. Why do traditional Mexican populations not develop pellagra while other population groups eating similar food show signs of pellagra’s “4-Ds”?
27. Homocysteine is a toxic amino acid. It is a marker (indicator) for CVD. What are the two metabolic pathways for “removing” homocysteine and which vitamins are required?
28. Name three diseases that are caused by a folate deficiency:
29. What is the mechanism that allows B12 to enter the body? What blood disorder is caused by pernicious anemia?
30. What is the cause of scurvy? Symptoms? Why sailors are called limeys?
31. What might happen if you consume excess amounts of vitamin C?