

Ascorbic Acid (Vitamin C)

Nutrition · Practice Test · 30 Questions

1. What is another name for Vitamin C, and why is it called that?

- A) Ascorbic acid, because it is an antioxidant
- B) Antiscorbutic vitamin, because it prevents scurvy
- C) Citric acid, because it is found in citrus fruits
- D) L-ascorbic acid, because it is the most active form

2. Which of the following are the most active forms of Vitamin C?

- A) L-ascorbic acid and diketogulonic acid
- B) L-dehydroascorbic acid and diketogulonic acid
- C) L-ascorbic acid and L-dehydroascorbic acid
- D) D-ascorbic acid and L-ascorbic acid

3. What is the unit of measurement for Vitamin C?

- A) Milligrams (mgs)
- B) Micrograms (mcgs)
- C) Grams (gs)
- D) International Units (IUs)

4. Vitamin C is crucial for the formation and maintenance of what substance that holds cells together?

- A) Cellular fluid
- B) Intercellular cementing substance
- C) Mitochondria
- D) Ribosomes

5. Which of these bodily structures' integrity is NOT explicitly mentioned as being maintained by ascorbic acid?

- A) Capillary walls
- B) Bone marrow
- C) Nerve cells
- D) Teeth

6. Vitamin C is necessary for the conversion of folic acid to its active form, known as:

- A) Folinic acid
- B) Megaloblastic acid
- C) Pteroylglutamic acid
- D) Diketogulonic acid

7. What type of anemia is prevented by Vitamin C?

- A) Iron deficiency anemia
- B) Megaloblastic anemia
- C) Hemolytic anemia
- D) Sickle cell anemia

8. How does Vitamin C improve iron utilization?

- A) By converting iron to a more absorbable form
- B) By making iron more available for hemoglobin formation
- C) By preventing iron loss from the body
- D) By increasing the production of iron in the body

9. Vitamin C acts as an antioxidant by protecting normal cells from the damage of:

- A) Excess glucose
- B) Free radicals
- C) High temperatures
- D) Alkali substances

10. Which of these factors does NOT easily destroy Vitamin C?

- A) Heat
- B) Acid
- C) Light
- D) Cold

11. In the presence of which two metals is the destruction of Vitamin C hastened?

- A) Iron and copper
- B) Zinc and magnesium
- C) Calcium and potassium
- D) Sodium and chloride

12. Where is Vitamin C almost completely absorbed in the body?

- A) Stomach
- B) Large intestine
- C) Small intestine
- D) Esophagus

13. In cases of achlorhydria or gastrointestinal disorders, the absorption of Vitamin C may be affected. What is achlorhydria?

- A) Excess stomach acid
- B) Lack of HCl in the stomach
- C) High levels of bile
- D) Poor enzyme activity

14. Since there is hardly any storage of Vitamin C in tissues, what is used as an index of vitamin C saturation?

- A) Adrenal glands
- B) White blood cells
- C) Liver
- D) Plasma

15. Which of these species, along with humans, cannot synthesize Vitamin C from glucose?

- A) Dogs and cats
- B) Rats and mice
- C) Guinea pigs and monkeys
- D) Cows and sheep

16. What is the enzyme that converts L-gulononic acid to L-ascorbic acid, which is lacking in humans?

- A) Oxidase
- B) Catalase
- C) Peroxidase
- D) Dehydrogenase

17. What is D-ascorbic acid to L-ascorbic acid?

- A) A precursor
- B) A byproduct
- C) A vitamin antagonist
- D) An isomer

18. Which of the following is NOT a deficiency sign of Vitamin C at an early stage?

- A) Irritability
- B) Weakness
- C) Swollen gums
- D) Lack of appetite

19. In severe deficiencies of Vitamin C, what is the deficiency disease called?

- A) Pellagra
- B) Rickets
- C) Scurvy
- D) Beriberi

20. Which of these is a characteristic symptom of scurvy?

- A) Night blindness
- B) Bone deformities
- C) Bleeding gums
- D) Dry skin

21. In infantile scurvy, why does the infant flex his legs for comfort, resulting in the "frog's position"?

- A) Due to swollen thighs and painful joints
- B) Due to muscle spasms
- C) Due to fever
- D) Due to abdominal pain

22. Toxicity cases of Vitamin C (hypervitaminosis C) are rare because:

- A) It is stored in high amounts in the body
- B) Excess Vitamin C is easily excreted
- C) The body develops a tolerance to high doses
- D) It is not absorbed in large quantities

23. Megadoses of Vitamin C may cause adverse effects in susceptible individuals, such as:

- A) Improved vision
- B) Strengthened bones
- C) Rashes and diarrhea
- D) Increased energy levels

24. Who generally needs more Vitamin C than females?

- A) Children
- B) Older persons
- C) Males
- D) Smokers

25. Vitamin C needs are increased during which life stages or conditions?

- A) Adulthood and old age
- B) Growth, pregnancy, and lactation
- C) Sedentary lifestyle
- D) Low-stress environments

26. According to the Philippine RNI, what is the recommended daily allowance of Vitamin C for adult males (19 years and over)?

- A) 70 mg/day
- B) 75 mg/day
- C) 105 mg/day
- D) 120 mg/day

27. What is the tolerable upper intake level for Vitamin C per day for adults, as stated by US-DRI?

- A) 1,000 mg/day
- B) 1,500 mg/day
- C) 2,000 mg/day
- D) 2,500 mg/day

28. Which of these is considered the richest source of Vitamin C?

- A) Guava
- B) Papaya
- C) Puerto Rico cherry (acerola)
- D) Orange

29. Which of the following local fruits in the Philippines is NOT listed as an excellent source of Vitamin C?

- A) Guava
- B) Mango
- C) Durian
- D) Bayabas (guava)

30. Vitamin C is most easily destroyed by heat, oxidation, and:

- A) Cold
- B) Sunlight
- C) Alkali
- D) Acid