

Micronutrients: Vitamins and Minerals

1. Introduction:

Micronutrients are vitamins and minerals required in small amounts but are crucial for health and well-being. They support growth, immunity, bone health, and more.

2. Vitamins:

- Fat-Soluble: A, D, E, K (stored in the body)
- Water-Soluble: B-complex and C (not stored, need regular intake)

3. Key Functions of Vitamins:

- Vitamin A: Vision, immunity
- Vitamin C: Antioxidant, skin, wound healing
- Vitamin D: Bone health, calcium absorption
- Vitamin E: Protects cells from damage
- Vitamin K: Blood clotting

4. Minerals:

- Major: Calcium, Potassium, Magnesium
- Trace: Iron, Zinc, Iodine, Selenium

5. Common Deficiencies:

- Iron: Anemia
- Vitamin D: Rickets, osteomalacia
- Iodine: Goiter
- Calcium: Osteoporosis

6. Toxicity Risk:

Over-supplementation can cause harm (e.g., Vitamin A, Iron)

7. Summary:

Micronutrients, though needed in small quantities, are vital. A varied diet of whole foods usually meets all vitamin and mineral needs.