



CLASS NOTES

Carbohydrates

- Carbohydrates are present mostly as starch.
- Carbohydrates are energy-giving nutrients.
- Sources of carbohydrates: Wheat, Potato, Rice
- Test for Carbohydrates: Iodine test
 - Put 2-3 drops of dilute iodine solution on the sample food item.
 - If the colour changes from brown to blue-black, the presence of starch is confirmed.

Proteins

- Proteins are body building nutrients.
- They help in the growth and repairment of our body.
- Sources of protein: eggs, meat, milk, soyabeans
- Test for Proteins:
 - The sample food item is made into diluted paste.
 - Add two drops of solution of copper sulphate and ten drops of solution of caustic soda to it.
 - If the colour of the resulting solution changes to purple, the presence of protein is confirmed.

Fats

- Fats are high-energy nutrients.
- Fats are the reserved food material of our body.
- Sources of fat: Oils, ghee, butter
- Test for Fats:



- Fats in the food are tested by a simple paper test.
- A little amount of sample food is wrapped in a paper and crushed.
- If the paper gets an oily patch, the presence of fat in the food is confirmed.

Vitamins

- Vitamins help in maintaining normal body functions and protect our body against diseases.
- Vitamins keep our eyes, bones, teeth, gums and skin healthy.
- Sources of vitamins: Fruits and vegetables
- Essential Vitamins in food:

Vitamin		Function
Vitamin A		Keeps eyes and skin healthy
Vitamin B Complex	Vitamin B1	Helps the body to use energy from the food we eat
	Vitamin B2	
	Vitamin B3	
	Vitamin B5	
	Vitamin B6	
	Vitamin B7	
	Vitamin B9	
	Vitamin B12	
Vitamin C		Help heal wounds, maintains healthy gums and blood vessels, fights infections
Vitamin D		Keeps teeth and bones healthy
Vitamin E		Maintains healthy skin and hair, slows down ageing, a powerful antioxidant



Vitamin K	An important factor in blood clotting, bone healing and body repair
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Minerals:

- Minerals are essential for various metabolic functions including growth and organ functioning.
- Important minerals required for our body are sodium, potassium, calcium, Iodine, zinc, iron, phosphorus, magnesium etc.

Fibres

- Humans cannot use fibres as nutrients.
- They help in the easy movement of the food along with the digestive system.

Balanced Diet

- A balanced diet is a diet that has all the necessary nutrients in the amount that is needed for normal body functioning.

Deficiency Diseases

- Deficiency diseases are caused by the lack of certain nutrients.
- These diseases can be treated by a balanced diet.

Vitamins and Minerals	Deficiency Diseases	Symptoms
Vitamin A	Night blindness	Poor vision, loss of vision in darkness
Vitamin B1	Beriberi	Weight loss and weak muscle



Vitamin C	Scurvy	Bleeding gums, wounds take longer time to heal
Vitamin D	Rickets	Bones become soft and bent
Calcium	Bone softening and tooth decay	Brittle bones, tooth decay
Iron	Anaemia	Low red blood cell count
Iodine	Goitre	Enlarged thyroid gland

