Relationship between Food, Nutrition & Health
Different Classes of Nutrients

There are six different kinds of nutrients in foods.

- Proteins (Meat, Beans, Fish)
- Carbohydrates (Wheat, Grains)
- Minerals
- Vitamins
- Fats
- And Water
Proteins

Used for replacement and repair of body cells and for growth.
Made up of amino acids – building blocks of the body
Provide essential amino acids to the body
They provide structure to the body, cells and are part of hormones, enzymes etc
Found in eggs, milk, cheese and meat
Essential amino acids must be supplied by food
Carbohydrates (CHO)

• Main source of energy – 1 gm provides 4 kcal of energy
• Made up of carbon, hydrogen and oxygen,
• Sugars are simple CHO -
• Starch and fibre are complex CHO
• Sugars are found in fruits, honey and milk, sugar
• Starches are found in cereal grains, pulses, roots & tubers
• Fibre is found in whole grain cereals, seeds, beans and peas
Fats

Called as lipids, oils

Provide excess energy – 1gm provides 9 kcal of energy and help to absorb fat soluble vitamins

Fat is good storage form for energy

Source of essential fatty acids

Excess energy is converted to fat

Classified as saturated, or unsaturated based on their structure

Saturated fats are associated with high cholesterol
Minerals

- Are organic nutrients
- Many chemical reactions in the body are regulated by minerals
- They act as co enzymes in many metabolic reactions
- They are very important for maintaining the acid base balance, water balance and the homeostasis of body fluids
- Though required in small amounts they are very important for maintaining normal body functions
Vitamins

- Needed for growth, regulating body functions, and preventing disease

- Generally, all the vitamins are provided to the body by a well balanced diet

- Both excess and deficiency of vitamins cause health problem

- There are 2 groups of vitamins
  - Fat Soluble
  - Water soluble
Water

• Required for survival
• Important for maintaining the blood volume, as a medium for solvent for many substances
• Regulates body temperature, transports many substances to all cells, is a lubricant
• Cells in the body require water to carry out their functions
• Almost 60% of the body is composed of water
• Water is lost from the body in the form of perspiration, exhalation and excretion for removing the waste products.