

ASSIGNMENT :-> HEALTH AND PHYSICAL EDUCATION

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To :->

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By :->

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Roll No :-> 336

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IV Semester

Topic => Nutrition -> Function of food and Food Habits,
Elements of Balanced Diet and Malnutrition.

Posture -> Meaning, Importance of Good Posture,
Postural Deformities.

Function of Food AND FOOD HABITS

Food is described as the nutritive material solid, liquid
taken into human body.

- Functions →
- 1) Food provides energy for various activities of the body.
 - 2) It keeps up the body temperature.
 - 3) It helps the body to grow and replace the worn out tissues.
 - 4) It protects our body from various diseases.
 - 5) It controls the functioning of body systems.

FACTORS AFFECTING DIET

Diet depends on the following factors :->

1. Age, sex and Body surface area → Diet differs from age to age. Young ones need different types of food both in quality as well as in quantity as compared to older people who need diet in less quantity.
2. Types and duration of Activity → Diet also depends upon types and duration of

activity that we do. An athlete involving in vigorous training need more calorific value.

3. Eating habits and social customs → eating habits and social customs also affect the diet of an individual. Some individuals are habitual of eating fast food whereas other do not like it.

4. Climatic factors → Food is varied in different climates. So you have an experience of having different diet in summer and winter.

5. Health status and growth → If you are in good state of health then you will have good diet whereas unhealthy individuals cannot have similar diet.

BALANCED DIET

A Balanced Diet is defined as one which contains a variety of food in such quantities and proportions that the need for energy, amino acids, vitamins, minerals, fats, carbohydrates and other nutrients is adequately met for maintaining health, vitality and general well being and also makes a small provision for extra nutrients to withstand short duration of learners.

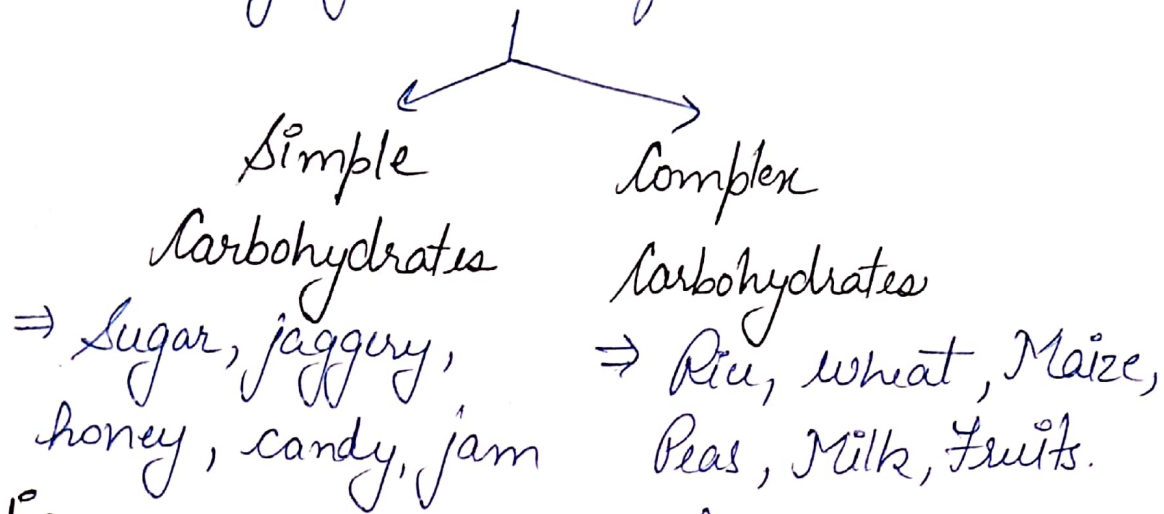
Functions of Nutritious Diet

1. It helps in the repair and maintenance of body tissues.
2. Nutritious diet maintain osmotic pressure.
3. Muscles require nutritious diet when a man puts in hard physical labour.
4. It has power to bear heat.
5. It promotes reproduction.
6. It protects our body from infections.
7. It helps in the formation of blood clot.
8. It maintains cell divisions.

ELEMENTS OF BALANCED DIET

- ⇒ Carbohydrates
- ⇒ Fats
- ⇒ Proteins
- ⇒ Vitamins
- ⇒ Minerals
- ⇒ Water
- ⇒ Fiber

1 CARBOHYDRATES → Carbohydrates play a major role in promoting your health fitness.



- Junctions →
- 1) It act as reserve fuel supply in the form of body cells
 - 2) It provide 4 kcal of energy
 - 3) They are chief source of energy and heat.
 - 4) They are needed to prevent dehydration.
 - 5) The mass of glucose is stored in liver and muscles.

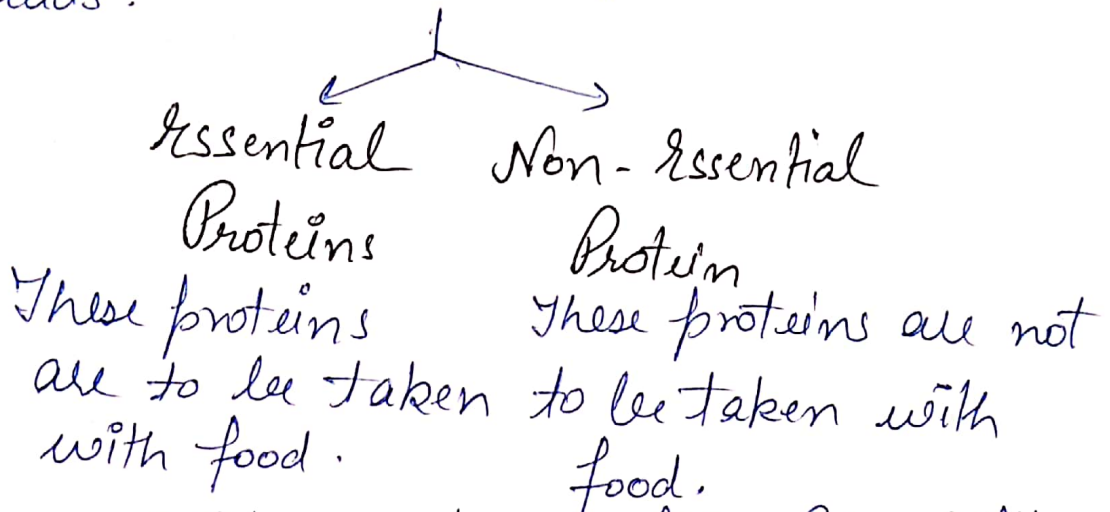
2 FATS → Fats along with proteins and carbohydrate are one of the three nutrients used as energy sources by the body.

Sources → Oil seeds, Coconut, Butter, Ghee, Fish etc.

- Junctions →
1. Fat provides needed energy.
 2. It provides insulation under the skin from the cold and the heat
 3. It protects organs and bones from shock and protect & provide support to organs.
 4. Provides heat in the body.

2. PROTEIN →

Protein is an essential nutrient. There is no life without protein. Proteins are made up of smaller units called amino acids.



Sources ⇒ Milk, meat, egg, fish, Pulses, Milk, Fruit etc.

Junctions → 1 Body building, Repair and maintenance of tissues

2 Maintenance of osmotic pressure.

3 Synthesis of antibodies, plasma proteins and haemoglobin.

4 They help in body building.

4. Water →

Clean and safe drinking water is an essential component of a healthy diet. Man cannot live without water.

Junctions → 1 It helps in digestion of food.

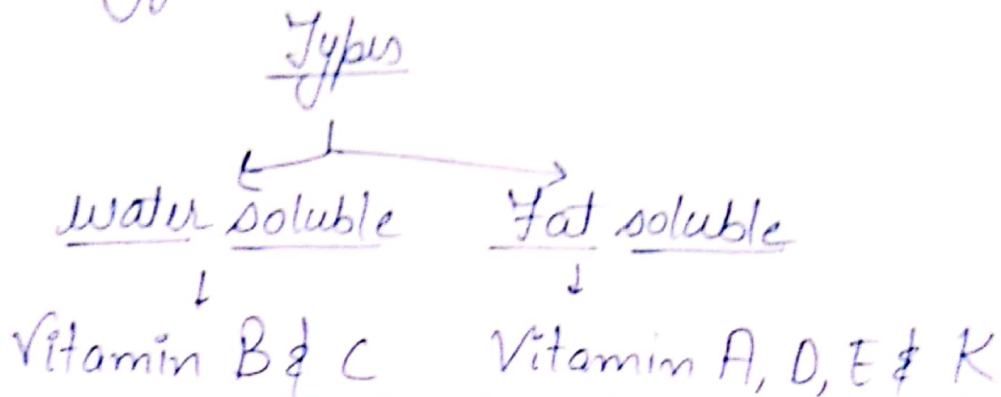
2 It saves the bones from becoming brittle

3 It helps in circulation of blood.

4 It regulates the body temp.

5 It helps all the tissues of body.

5 VITAMINS → These are accessory food factors, required in small quantity for controlling metabolism and body functioning. They do not provide energy.



Vitamins	Source	Functions	Deficiency
Vitamin A (Retinol)	Milk, Fish, Butter	Forms Retinol pigment	Night Blindness.
Vitamin B ₁ (Thiamine)	wheat, Gram Beans	Functioning of nervous system.	Beri-Beri
Vitamin B ₂ (Riboflavin)	Liver, Milk, Cheese	Maintain healthy skin	Cheilosis
Vitamin B ₆ (Folic acid)	Banana, Green veg.	Maturation of RBC.	Macrocytic anaemia
Vitamin B ₁₂ (Cyanocobalamin)	Eggs, Fish, Liver	Promote DNA synthesis, Maturation of RBC.	Pernicious anaemia.
Vitamin C (Ascorbic acid)	Citrus fruits	Formation of Collagen.	Scurvy
Vitamin D (Calciferol)	Milk, Sunlight	Ca & P deposition in bones & teeth.	Rickets
Vitamin E (Tocopherol)	Leafy vegetables	Keep skin healthy	Reproductive failure
Vitamin K	Soyabean oil	Normal Blood clotting	Delayed Blood Clotting

1 **FIBER** → The parts of fruits & vegetables that cannot be digested. Fiber is a vital importance to digestion, it helps the body to move food through the digestive tract. It is known as Bulk & Roughage.

MALNUTRITION

It is a state resulting from a relative or absolute deficiency or excess of one or more essential nutrients.

It has four types: →

- 1) Under Nutrition
- 2) Over Nutrition
- 3) Imbalance
- 4) Specific deficiency.

Symptoms →

1. Individual lose weight and appearance become thin.

2. Muscles become loose.

3. Pale complexion

4. Person feels fatigued

5. The person becomes afraid & suspicious

6. Concentration is lost

7. Loss of sleep.

Remedies →

1. Good home environment

2. Good school environment

3. Mid day meal program scheme

4. Balanced diet.

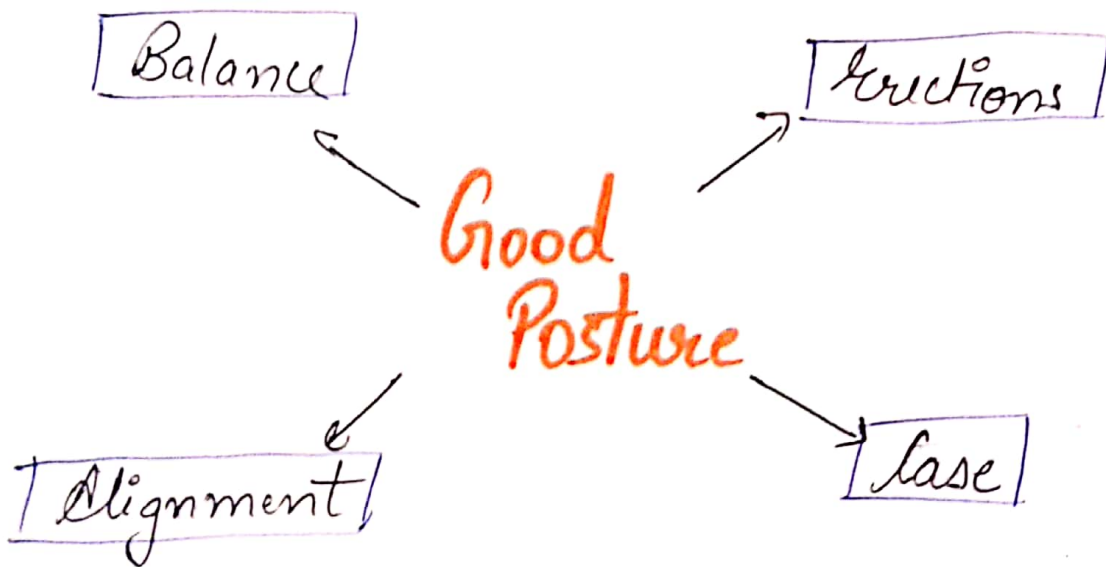
5. Fixed time

6. Health check up.

POSTURE

According to Wale, the balanced posture is "a posture by which we mean the alignment of the head, neck, shoulder, trunk, pelvis and limbs."

Characteristics ⇒ The effective and efficient functions of body should be the key to a good posture



- 1 Minimum expenditure of energy
- 2 Posture according to situation
- 3 Equal distribution of weight
- 4 The axis being parallel to vertical line
- 5 Pressure within the joints is equalized.
- 6 Shoulders are erect
- 7 Minimum wear and tear of joints
- 8 Balanced body.

POSTURE DEFORMITIES →

1. Kyphosis ⇒ It is of two types: →

i) First Type ⇒ It is also called Round neck back.

ii) Second Type ⇒ The legs are inclined forward and trunk is bent backward.

Causes ⇒ In childhood

- ⇒ Habitual bad posture
- ⇒ Sight and hearing problems
- ⇒ Emotional factor.

In Adult

- ⇒ Habitual bad posture
- ⇒ Occupation
- ⇒ Arthritis.

Remedies ⇒ It can be treated with

Relaxation Exercise
⇒ Circle the shoulder.

Mobility exercise
⇒ Trunk Rolling
⇒ Back Running
⇒ Circling of elbow

Stretching Exercise
⇒ Trunk hanging on Bar

2 Flat Foot → This is also known as pes-plano. The simple flat foot with dropping arch. without any eversion and pain are common among children & adult. It is common among female.



Flat Foot



Normal Foot

- Causes ⇒
- 1 Paralysis of supporting arch muscles
 - 2 Due to Rickets
 - 3 Malnutrition
 - 4 Unsuitable foot wear
 - 5 Increased body weight

- Treatment ⇒
- 1 Heel raising, lowering.
 - 2 Sitting with feet crossed.
 - 3 Sitting with feet resting on ground.
 - 4 Sitting toe separated.
 - 5 Pressing the toe on ground
 - 6 Walking on the inclined board.